The Impacts of New Neighborhoods on Poor Families: Evaluating the Policy Implications of the Moving to Opportunity Demonstration

1. Introduction

The U.S. Department of Housing and Urban Development's (HUD) Moving to Opportunity for Fair Housing Demonstration, or MTO, is a large, federally funded social experiment designed to test whether improved neighborhood opportunities may significantly affect the life chances of low-income public housing residents. This paper provides the first systematic overview of the design of the MTO and describes its key features. The paper also offers the first cross-site analysis of research findings and explores the MTO's relevance to social science research concerning housing and neighborhood effects.

We begin with the social science background to MTO and discuss the purposes of the demonstration. We then describe the key features of the demonstration and how its experimental design addresses methodological issues that have long limited

neighborhood effects research. The implementation of the demonstration and how that implementation shapes and limits the research is discussed next, followed by a description of the major research results from a number of MTO studies. We conclude with a discussion of future research needs and policy issues.

1.1 Research Background

Research over the last decade has shown that poverty in the United States has become increasingly concentrated in "high-poverty" neighborhoods, and that such concentrations appear to have a range of detrimental effects on the well-being and future opportunities of residents of those areas (Jargowsky 1997; Wilson 1987, 1996; Brooks-Gunn, Duncan, Klebanov,

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and Saland 1993; Aneshensel and Sucoff 1996; Sampson 2000; Morenoff, Sampson, and Raudenbush 2001; Catsambis and Beveridge 2001). The harmful effects of high-poverty areas are thought to be especially severe for children; their behavior, choices, and prospects may be particularly susceptible to neighborhood-based events and characteristics, such as peer group influence, school quality, and the level of violent crime (Galster and Killen 1995; Ellen and Turner 1997; Leventhal and Brooks-Gunn 2001).

Social scientists have also focused recently on the possible theoretical causes of both the positive and negative effects of neighborhoods (Manski 1993, 2000; Galster and Killen 1995; Galster, Quercia, and Cortes 2000; Leventhal and Brooks-Gunn forthcoming). The core question is whether there are clear, independent effects from a neighborhood. If so, then social science must next attempt to identify the causes and processes through which such effects appear in the lives of children, adolescents, or adults. While there has long been social science evidence of the harmful effects of living in concentrated-poverty neighborhoods, evidence and discussion about how neighborhood environments may exert positive influences on behavior and life chances are more recent (Brooks-Gunn, Duncan, and Aber 1997; Sampson, Morenoff, and Gannon-Rowley 2002).

Galster and Killen (1995) have noted the complexity of the causal influences linking metropolitan and neighborhood-based opportunities; they point out the dynamic nature of opportunities, and the critical issue of residents' willingness and ability to take advantage of contextually positioned resources. Ellen and Turner's (1997) summary of the literature in this area suggests various mechanisms by which middle-class (often predominantly white) neighborhoods shape, or reshape, the lives of residents. The effects of neighborhood appear to be more pronounced for children rather than for adults. Leventhal and Brooks-Gunn (2001) offer evidence that neighborhood influences on achievement measures—such as IQ—are most important below five years of age.

Despite considerable progress over the last decade, researchers have only a limited understanding of which neighborhood effects are most likely to appear first, in what types of households or family members they may appear, under what circumstances, and with what durability or persistence. This paper provides evidence that there are such effects, that they are clearest for children and teenagers, and that there is little evidence of positive neighborhood effects on adults to date.

We also do not know whether there are effective policy tools for improving the life chances of those who move into betteroff neighborhoods. Among the research issues that have received minimal attention is whether public housing or other forms of federal housing assistance for the poor can alter the present or future opportunities of program participants (Newman and Harkness 2002). Interest is relatively recent concerning whether moving families from heavily racially and poverty-concentrated neighborhoods can generate positive changes in attitudes and subsequent behavior (Rubinowitz and Rosenbaum 2000; U.S. Department of Housing and Urban Development 2000; Goetz 2001). And there has been a notable absence of experimentally designed research to address persistent policy and research questions about the positive or negative effects of concentrations of assisted housing (Galster and Daniell 1996).

Following the Experimental Housing Allowance Program begun in 1970, MTO was the first attempt to design and operate a random-assignment program aimed at testing the effects of HUD's major current forms of housing assistance—public housing and tenant-based Section 8 rental assistance—compared with an economically based, deconcentrated form of rental assistance (U.S. Department of Housing and Urban Development 2000). Specifically, MTO is the first systematic test of whether shifting to tenant-based assistance and altering the neighborhood may noticeably improve the life chances of low-income residents who formerly lived in distressed, innercity public-housing developments.

The first research suggestion that housing mobility or deconcentration may have important social and educational effects appeared in the late 1980s, prompted by a federal court-ordered racial desegregation program in Chicago. Under the name of tenant-activist Dorothy Gautreaux, applicants and residents of Chicago public housing brought a class-action housing segregation lawsuit against HUD and the Chicago Housing Authority (CHA) in 1966 (Davis 1993; Rubinowitz and Rosenbaum 2000). After years of litigation, which went all the way to the Supreme Court, the courts ordered HUD and the local CHA to remedy the extreme racial segregation that they had imposed on public-housing applicants and residents. Starting in the late 1970s, these agencies had to provide (among other remedies) a housing mobility option throughout the Chicago region for about 7,100 black families.

The Gautreaux program took shape as a result of the Court's ruling. "Gautreaux families," as they became known, were helped to move out of racially isolated areas through the (thennew) tenant-based Section 8 program. Families chosen for the Gautreaux program received Section 8 certificates that required them to move to either predominantly white or racially mixed neighborhoods. They also received assistance from housing counselors to make these moves. Roughly three-quarters of all the families were required to move to predominantly white (usually suburban) areas, while about one-quarter were allowed to move to more racially mixed city

neighborhoods. Families unwilling to make these moves did not receive the housing subsidy. While the eligibility criteria, as well as the forms of housing counseling offered participants, varied somewhat over the roughly twenty years of the program's operation, the required move to a nonsegregated neighborhood persisted until the completion of the program in 1998 (Rubinowitz and Rosenbaum 2000).

Beginning in the late 1980s, research on the Gautreaux program suggested that the moves to less segregated suburban locations were associated with measurable improvements in the lives of participating children. Changes were reported for small samples of children who had been living in less segregated neighborhoods for periods of seven to ten years. Such children were less likely to drop out of school and were more likely to take college-track classes than their peers (in a comparison group) who moved within the City of Chicago rather than to suburban areas. The city neighborhoods were poorer and more racially segregated than the suburban locations. After graduating from high school, the Gautreaux children were also more likely than their city peers to attend a four-year college or to become employed full-time (Rubinowitz and Rosenbaum 2000).

1.2 MTO's Purpose

The promising Gautreaux results, as well as increasing concern about the high levels of racial and economic isolation of many public housing families (Hirsch 1983; Newman and Schnare 1997), led Congress to initiate a demonstration program aimed at offering better neighborhood opportunities to publichousing residents living in distressed inner-city areas. Dimond (2000, p. 259) outlines the antipoverty argument for MTO:

Isolating poor persons in inner-city ghettos and barrios does not help them connect to the rising demand for more workers throughout the local regional labor markets.... Thus federal, state, and local governments act irresponsibly and waste taxpayer dollars whenever they limit housing and job-training subsidies to particular projects or places—public or private—rather than putting such subsidies directly in the hands of poor families so they can choose for themselves where best to live and learn in order to find new and better jobs.

In 1992, these factors—the concentration and persistence of urban poverty and the awareness of the Gautreaux program findings—led a coalition of Democratic and Republican policymakers to propose offering public-housing residents the chance to move to private rental housing in

more affluent communities by means of a housing voucher. The demonstration they envisioned would test whether HUD's main tenant-based housing program, the Section 8 rental assistance program, could be used effectively to assist poor, largely minority families in successful relocation to private rental housing in working-class or middle-class neighborhoods—in which landlords were unaccustomed to renting to poor families.

MTO is a planned social experiment making use of HUD's Section 8 rental subsidy program to facilitate the residential mobility of families out of inner-city public-housing developments in five cities across the country. The MTO demonstration was authorized by the Housing and Community Development Act of 1992 to "assist very lowincome families with children who reside in public housing or housing receiving project-based assistance under Section 8 of the Housing and Community Development Act of 1937 to move out of areas with high concentrations of persons living in poverty to areas with low concentrations of such persons." *High concentrations of poverty* were defined as census tracts where 40 percent or more of the residents were poor in 1990. Low-poverty areas were defined as census tracts where less than 10 percent of the population lived in poverty in 1990. The 40 percent threshold follows a social science standard for defining deeply poor ("underclass") neighborhoods (Jargowsky 1997; Brooks-Gunn, Duncan, and Leventhal 1997). The 10 percent threshold for "low poverty" corresponds to the median tract-level poverty rate across the United States in 1990.

Congress appropriated \$20 million in Section 8 rental assistance for fiscal year 1992 and another \$50 million for fiscal year 1993 for MTO. Congress also stipulated that HUD should conduct evaluations of the demonstration to determine short-and long-term impacts. HUD decided that the most effective means for reliably answering questions about such impacts was to establish a social experiment, including a random-assignment process that would allocate, by a computerized lottery, families who volunteered into different treatment groups.

2. MTO's Design

2.1 Methodological Shortcomings of Prior Research

The problem of selection bias has been recognized by social scientists for over a decade as a crucial limitation on the

Gautreaux research and most other research on neighborhood effects (Mayer and Jencks 1989; Crane 1991; Case and Katz 1991; Lehman and Smeeding 1997, p. 262). Jencks and Mayer (1990, p. 119) caution:

The most fundamental problem confronting anyone who wants to estimate neighborhood's effects on children is distinguishing between neighborhood effects and family effects. This means that children who grow up in rich neighborhoods would differ to some extent from children who grow up in poor neighborhoods even if neighborhoods had no effect whatever.

People typically select their neighborhoods to match their needs and resources. Therefore, researchers restricted to cross-sectional, nonexperimental evidence must try to separate the impact of personal factors affecting choice of neighborhood from the effects of the neighborhood. But it is difficult—if not impossible—to measure all these socioeconomic, personal, and local characteristics well enough to distinguish their effects. The answers sought are often hidden in unmeasured factors and unexplained variations.

Issues of selection bias notably limited the credibility of the findings from the Gautreaux research. First, there was evidence that families self-selected to participate in the program. There was also evidence that the program screened participants for suitability to particular neighborhoods or communities. In the early years of Gautreaux, for example, program managers and counselors identified the families with the potential to succeed in the suburbs, and matched them with landlords and communities there. Other families, judged to be less suitable for suburban locations, were not placed by the program or were placed in city neighborhoods. Second, because of the limited information gathered and kept about the families who joined Gautreaux but did not move, the differences in families' demographic or personal characteristics that affected success in moving could not be investigated. Third, some evidence of positive mobility effects in the Gautreaux program is based upon small, nonrepresentative fractions of the families enrolled—those who could be found a number of years later (Popkin, Buron, Levy, and Cunningham 2000).

The direct solution to the problem of selectivity bias is to remove people's ability to select their neighborhoods by randomly assigning them to a community. This detaches the individual's personal characteristics and preferences from the neighborhoods' potential impacts (Brooks-Gunn, Duncan, Leventhal, and Aber 1997, p. 286). Jencks and Mayer (1990, p. 119) describe this requirement:

From a scientific perspective, the best way to estimate neighborhood effects would be to conduct controlled experiments in which we assigned families randomly to different neighborhoods, persuaded each family to remain in its assigned neighborhood for a protracted period, and then measured each neighborhood's effects on the children involved.

However, until MTO, there had never been an initiative to design and implement this type of controlled experiment.

2.2 MTO's Experimental Design

From September 1994 to July 1998, public- and assisted-housing families, who volunteered and were found to be eligible, were randomly assigned to one of three groups:

- 1. The MTO treatment group, which received Section 8 certificates or vouchers usable only in areas of less than 10 percent poverty. Families in this group were also provided counseling assistance from a local nonprofit organization in finding a private rental unit.
- 2. A Section 8 comparison group, which received regular Section 8 certificates or vouchers with no special geographic restrictions or counseling.
- 3. An in-place control group, which continued to receive its current project-based assistance.

The Section 8 comparison group was established in order to allow measurement of the extent to which the routine operation of the Section 8 program generates changes in location and in family outcomes that can be compared with changes for the treatment-group population. The in-place control group was created to measure the behavioral outcomes for children and adults who remained in public-housing developments in deeply poor communities to permit comparison of their outcomes with the other two groups. Although MTO was targeted to a specific population (very lowincome families with children, living in public or assisted housing in concentrated-poverty areas), its participants share many characteristics with families who have worst-case housing needs, families excluded from the economic mainstream, and families in poverty (U.S. Department of Housing and Urban Development 2001).

The random-assignment design embedded in the MTO demonstration program seeks to test the effects of neighborhood experimentally and avoid selection bias. MTO uses a carefully designed and strictly implemented random-assignment process to ensure that nothing about an individual or family could influence the group assignment. Assignment of families among the three groups was carried out under uniform procedures across the five sites, with thorough monitoring and

recordkeeping. As a result, the research findings concerning MTO address whether willing poor families with children—given the opportunity to improve their neighborhood conditions—may benefit significantly from an atypical change in residential location.

The experimental design of MTO not only permits analyses of impacts in a variety of domains (such as child educational achievement, adult employment and earnings, youth risktaking, and the physical and mental health of family members) but also permits multiple-method or tiered assessments of cross-cutting questions that will help verify or enhance what has been learned about neighborhood impacts on families, adults, and children. Answering these questions is possible because MTO is an ongoing, longitudinal research project designed to address some questions that only the passage of time can answer.

2.3 MTO's Research Hypothesis

MTO's design includes three phases of evaluation. The first phase, conducted by seven teams of social scientists operating in single MTO sites and with their own research strategies, constitutes the bulk of the evidence synthesized in this paper. The second stage is a major cross-site evaluation, currently in the field, from which results are expected by 2003. The third and final stage of MTO research will occur approximately six years from now—a final impact evaluation of the demonstration.

MTO's research value is rooted in the fact that it is the first experimentally designed panel study aimed at understanding the effects that neighborhoods may have upon low-income residents of public and assisted housing. The experiment has been designed to show whether the negative impacts of distressed neighborhoods on families can be reversed by offering public-housing families the choice to volunteer to move to more affluent neighborhoods. The core hypothesis is that MTO will have positive and statistically significant effects on the lives of the experimental-group families when compared with the lives of the in-place control-group members. Contrasts with any effects experienced by the Section 8 comparison group will reveal whether tenant-based rental assistance—without any geographical restriction—can achieve similar results. The MTO hypothesis is that the offer of a move from a poor to a nonpoor neighborhood will significantly improve the neighborhood conditions of the families, and will affect their longer run prospects in areas such as education, health, risky behavior, and criminal activity.

MTO provides an estimate of the effectiveness of the *offer* of the experimental treatment in improving the lives of publichousing residents *as a group*. The intent-to-treat (ITT) estimates reported in this paper recognize that some members of the target group did not use the Section 8 subsidy. The measured ITT effects include the outcomes not only for those who moved, but also for those who were randomly assigned to receive the treatment but did not relocate. However, even if the ITT effects are statistically significant, the larger the proportion of those who fail to move then the less effective a program like MTO would be in improving the lives of additional publichousing families.

Next, we describe the results of the implementation stage of the demonstration and discuss the characteristics of the MTO volunteers. We then present the research results on the effects of the experiment on the children, teenagers, and adults who participated, focusing essentially on ITT effects.

3. MTO IMPLEMENTATION— CHARACTERISTICS AND LIMITATIONS

In this section, we turn to the specifics of how the MTO demonstration was conducted. These details provide information on demonstration selection criteria and on some of the characteristics of the programs design that affect the interpretation of the research findings reported in the next section.

3.1 Initial Implementation

MTO implementation began with HUD's issuance of a notice of funding availability (NOFA) in September 1993 soliciting sites for the demonstration. The NOFA laid out the statutory criteria for MTO site selection and the general outline of program operations. In March 1994, HUD selected five local public-housing authorities (PHAs) to participate in running the MTO demonstration. The sites selected were Baltimore, Boston, Chicago, Los Angeles, and New York. In its application, each PHA identified the public-housing and Section 8 project-based developments in high-poverty census tracts from which it would recruit families with children under eighteen. The PHAs also named a partner nonprofit agency to counsel the families assigned to the MTO treatment group.

The selected PHAs and nonprofit agencies were required to follow a general set of uniform rules and procedures for the

management of most key aspects of the demonstration—particularly research requirements. The core administrative responsibilities for implementing MTO were:

- outreach to landlords and families,
- · enrollment of families and creation of waiting lists,
- · determination of family eligibility,
- · random assignment, and
- counseling assistance for treatment-group families.

The PHAs and counseling agencies also helped implement MTO's experimental design—including the collection of data on the participants and the program. Based on their prior experience and on the availability of local funding to supplement HUD's grants, the counseling agencies varied the form and amount of counseling assistance offered to clients (Feins et al. 1997). This variation in treatment constitutes one of the limitations of MTO implementation.

The PHAs began MTO operations by informing all eligible residents of the targeted public- and assisted-housing projects in high-poverty census tracts about what MTO offered and how to apply. In most instances, there were meetings of groups of tenants to explain the program and answer questions. Waiting lists of applicants were then established in each city, and small groups of applicants (working down from the top of the lists) were invited to orientation sessions. At these sessions, the applicants were informed about the experiment: that they would be randomly (or by lottery) assigned to one of three groups; that they had a chance of being offered Section 8 by joining; and that—if they were chosen by lottery for the treatment group—they would be provided training, counseling, and housing search assistance in order to move to a low-poverty area in the city or suburbs. Families were also informed that they were only required to remain in the lowpoverty area for the length of their first one-year lease; after that, they were permitted to move to any area under regular Section 8 rules.

The applicants were also informed of the screening criteria established by the PHA, including the fact that all tenants had to be current in their rent payments and that there could be no criminal record for any family member. Families who enrolled agreed in writing to cooperate with the information gathering and research needed for the demonstration, and they filled out a lengthy baseline survey. Random assignment occurred only after the eligibility checking, screening, and initial data collection were finished.

3.2 Implementation Results¹

Intake

In MTO, among the families eligible to apply, about onequarter chose to do so; roughly 5,300 families volunteered in the five cities. The families were then screened for eligibility with respect to: 1) having a child under eighteen in the family, 2) being tenants in good standing (up-to-date in rent payments), 3) having all family members on the current lease, and 4) being without criminal background or history, as required (with some variation) by the local Section 8 program rules. In total, across the five sites, 4,608 families were found eligible and randomly assigned. With approximately 285 vouchers for HUD to allocate per site, this was a sufficient number of volunteers for the demonstration.

Fear of crime and the experience of criminal victimization were the major factors in families' decisions to participate in the MTO demonstration. When applicants were asked during their baseline interviews why they wanted to move away from the public-housing developments in which they lived, more than half (54.8 percent) identified the fear of crime, gangs, and drugs as the principal motivation.

In answer to whether those who volunteered for the MTO demonstration were typical of other residents from their public-housing developments, we learned that MTO households, compared with public-housing families who chose to remain, were somewhat different. They were younger (with heads of household thirty-five versus forty-one years old), more often female-headed (93 versus 78 percent), and less likely to be Hispanic (39 versus 45 percent). They were also slightly poorer (with an \$8,200 versus \$8,600 median income).

Lease-Up

Prior research has shown that not all Section 8 certificate and voucher holders have been able to use their housing assistance, and that successful lease-up is influenced by applicant characteristics, market features, and market conditions (U.S. Department of Housing and Urban Development 2000; Finkel and Buron 2001). Lease-up success rates also vary over time and among cities. For MTO, the lease-up rate for families in the demonstration's Section 8 comparison group was roughly 60 percent, while the rate for MTO treatment-group families across the five cities was 47 percent. Rates varied from a high of

more than 61 percent in Los Angeles to a low of only 34 percent in Chicago.

There are a number of possible explanations for these lower rates, including the fact that families in MTO were already securely housed with project-based housing subsidies. They were much less needy than emergency applicants and significantly less burdened by housing costs than were other low-income renters without subsidies. Therefore, despite the high levels of crime reported by MTO families, the incentive to lease-up through MTO was apparently lower than that of the typical Section 8 applicant. The lower lease-up rates achieved with MTO clearly will affect any future replicability of the demonstration.

Understanding the characteristics and motivations of families that succeeded in renting an apartment through the MTO demonstration can also help researchers to generalize from MTO to the larger universe of public-housing families. For all five sites, Shroder (2002) shows that success in leasing-up in MTO was positively associated both with families' dissatisfaction with their original neighborhoods, and with their degree of confidence (at baseline) about finding a new unit. The level of housing counseling received by the treatment families also helped in achieving lease-up.

Would MTO Families Remain in Low-Poverty Areas?

Did the families who moved out of public housing to low-poverty areas remain there, or did they move back into more familiar, higher poverty communities after the one-year requirement was fulfilled? The answer to this question matters because the potential benefits of moves to communities of opportunity may take years to accrue. Social science literature suggests that positive effects on child development, educational outcomes, and adult prospects (compared with continued life in public housing in deeply poor areas) might occur in a five-to-ten-year time frame, *but only if* the families remained in distinctly different neighborhoods (Leventhal and Brooks-Gunn 2001).

An examination of data from a 1997 HUD-funded survey of all the MTO families who joined the program from 1994 to 1996 shows that more than a third (34.5 percent) of the MTO treatment group—but just 10.6 percent of the comparison group, and less than 3 percent of the in-place group—was living in low-poverty neighborhoods. Although roughly 45 percent of the treatment group was living in high-poverty areas, those tenants were largely the nonmovers (those who remained in their initial public-housing developments),

compared with 38 percent of the Section 8 comparison group and 74 percent of the control group.

4. MTO Research Findings to Date: First-Stage Research

Research results concerning MTO to date derive from studies conducted by seven HUD-commissioned teams of social scientists; each team worked in one of the five MTO locations. These teams used a number of different data sources, including HUD administrative data; baseline survey data; data from follow-up surveys of enrolled families; some qualitative interviews; and some administrative data on juvenile crime, labor-market outcomes, and school performance. The initial studies covered various topics, used differing approaches, and were carried out by researchers from a range of disciplines.

As each team made use of differing analytic and methodological strategies, the resulting lack of comparability across sites is a limitation of MTO research to date. Further, initial research projects focused on establishing whether any early effects would appear soon after the transitions from inner-city projects. They did not focus on which institutions or processes caused improvement in the lives of children or adults (Sampson, Morenoff, and Gannon-Rowley 2002).

A number of statistically significant ITT results, for the groups as assigned, have been found in the early research undertaken on MTO families. Tables 1-3 present findings from different single-site research projects that have tested for statistically significant differences between the two treatment groups and the control group. The tables provide an overview of research results for three sets of issues: Table 1 presents findings on neighborhoods, Table 2 on outcomes for children, and Table 3 on outcomes for adults.

The focus here is on ITT effects, which are measured by considering the difference between the average outcome for the entire MTO treatment group, or the entire Section 8 comparison group, and the outcome for the control group. For example, the average poverty rate for census tracts occupied by members of the treatment group was 32.3 percent in 1997. The intent-to-treat effect is the difference between that rate and the control group's average poverty rate (48.1 percent); thus, the ITT effect is 15.8 percent. The treatment-on-treated (TOT) effect—that is, the estimated effect on those persons who successfully leased up under MTO—is generally higher, as it is measured for only those participants who actually took up the treatments (that is, moved with Section 8). In the analysis

below, we mainly focus on intent-to-treat effects, noting that whenever ITT effects are statistically significant, TOT effects are typically significant and stronger.

4.1 Neighborhood and School Characteristics

Table 1 reports differences in the neighborhood and school characteristics of the areas in which MTO participants live. Three critical outcomes follow from this research.

MTO Families Live in More Economically and Racially Mixed Communities

The 1997 survey of families at all five MTO sites enables us to examine whether residential locations differed significantly among the randomly assigned groups. After their initial moves and one-year leases, treatment-group families were no longer constrained to live in low-poverty areas. Despite this, one to three years after random assignment, treatment-group families lived in significantly more affluent and more racially mixed

Table 1
Early Evidence of MTO Impacts: Differences in Characteristics of Neighborhoods and Schools Where MTO Participants Live

Type of Impact	MTO Site	Population	MTO Treatment Group	Section 8 Comparison Group	In-Place Control Group
Differences in neighborhood after one to three years ^a	All sites	All households in MTO as of 12/31/96			
Poverty percentage of current location			32.3**	33.4**	48.1
Median income of current location			\$24,075**	\$21,246**	\$13,920
Percentage black population of current location			38.2**	40.3	48.6
Differences in total crime rate per 100,000 population in census tract ^b	Los Angeles	Households in MTO as of 12/18/96	6,137.25**	5,984.21**	8,018.40
Differences in average test scores for schools attended by MTO children in 1997 ^c	Boston	Households in MTO as of 5/96			
School's percentile, reading test score			15.9**	10.9	8.3
School's percentile, math test score			16.0**	12.6	9.9
Differences in resources and characteristics scores for schools attended by MTO children after random assignment and initial relocation ^d	Baltimore	School-age children of all households in MTO			
Percentage children receiving free lunch			66.82**	80.82*	84.82
Fifth-grade raw reading test pass rate			11.84**	7.84**	5.84
Fifth-grade raw math test pass rate			18.40**	15.40**	12.40
Differences in perceived safety of current neighborhood ^e	Baltimore	Adults in MTO as of 9/4/97			
Percentage reporting neighborhood has drug and crime problems			27.8**	60.8	_
Differences in perceived safety of current neighborhood ^f	Los Angeles	Adults in MTO as of 12/18/96			
Percentage reporting very safe neighborhood			27.5*	6.7	10.1

Notes: MTO is the Moving to Opportunity for Fair Housing Demonstration. Differences reported are based on intent-to-treat comparisons (full group) rather than adjusted treatment-on-treated results.

^aSource: Feins (2000, Exhibit 9).

^bSource: Hanratty, McLanahan, and Pettit (2001, Table 6).

^cSource: Katz, Kling, and Liebman (2001, Table 4).

^dSource: Ludwig and Ladd (forthcoming, Table 9).

^eSource: Norris and Bembry (2001, Table 16).

^fSource: Hanratty, McLanahan, Pettit (2001, Table 7).

^{*}Statistically significant difference from in-place control group (intent-to-treat effect) at *p* less than the .10 level.

^{**}Statistically significant difference from in-place control group (intent-to-treat effect) at *p* less than the .05 level.

communities than either the Section 8 comparison-group or the in-place control-group families.

Late in 1997, the average poverty rate of residential locations for the MTO treatment-group families and the Section 8 comparison-group families was significantly lower (by 15 to 16 percentage points) than the poverty rates of areas in which in-place control-group families lived. Moreover, median incomes in the treatment-group families' neighborhoods were 73 percent higher than median incomes in the control-group neighborhoods and they were 53 percent higher in the Section 8-only group locations compared with the controls.

There were also significant differences in the racial composition of the areas. In each of the five metropolitan sites in 1997, the MTO treatment-group families lived in less segregated neighborhoods than either the Section 8 comparison-group families or those who remained in place. Using the percentage black population as an indicator, there was a statistically significant 10-percentage-point reduction in black population in the treatment-group families' locations—compared with the locations of control-group families. But there was no significant difference for Section 8-only families (Feins forthcoming). Future analyses will make use of census 2000 tract-level data to examine how much the new neighborhoods have changed since 1990.

MTO Families Live in Areas with Lower Crime Rates

Measured at the census-tract level, in total crimes per 100,000 population, the places where MTO treatment-group families and Section 8 comparison-group families were living had significantly fewer crimes in Los Angeles. The reduction was 23 percent for the former and 25 percent for the latter group. The fact that regular Section 8 families benefited from moves from high-poverty projects is an important finding mirrored in some other early outcomes.

Schools Currently Attended by MTO Children Are Better

Research teams in both Boston and Baltimore demonstrated that schoolwide reading and math scores or pass rates were significantly better in treatment-group children's schools relative to the schools attended by children of in-place control-group families. In Baltimore, these indicators were also significantly better for the schools of children from Section 8-only families.

Families' Views of Their Neighborhoods Have Improved

The early MTO research has also demonstrated significant betterment in families' views of their neighborhoods. These views contrast with the higher levels of fear and dissatisfaction expressed by MTO applicants at baseline.

MTO Families Have Become Less Fearful

As noted earlier, many families enrolled in MTO because of their fear of the crime conditions surrounding them in their public-housing or Section 8 project-based developments. Most of the MTO research teams reported that freedom from this fear is among the earliest, clearest outcomes.

As shown in Table 1, significantly fewer Baltimore families in the treatment group reported neighborhood problems with drugs and crime, compared with reports from the Section 8 comparison group. A significantly higher proportion of MTO treatment-group members in Los Angeles reported very safe neighborhoods at follow-up, compared with those in the control group, but the difference between the Section 8 comparison group and the in-place control group was not found to be significant. In Chicago, MTO mothers were asked about the risks and opportunities their current locations offered to teenagers. Those in the MTO treatment group reported significantly reduced risks in comparison with their old locations, but those in the Section 8 comparison group did not.

4.2 Outcomes for Children

Turning to early evidence of MTO impacts on individuals in the demonstration, we present in Table 2 findings on children's behavior, health, and educational achievement, as well as results concerning youth involvement in violent crime.

The Boston research team found that there were significantly fewer behavior problems among boys in both the MTO treatment and the regular Section 8 groups relative to boys in the in-place group. A significantly higher proportion of girls in both treatment groups reported at least one close friend in the neighborhood. Treatment-group children were also less likely to be injured or to have an asthma attack. In fact, among children with asthma in Boston, there was a substantial reduction in the number of attacks requiring medical attention over the prior six-month period.

There Have Been Educational Improvements

In addition to the signs indicating that the children are attending better schools (Table 1), Ludwig, Ladd, and Duncan (2001) report direct evidence of the effect of MTO in Baltimore upon the school performance of individual children. The researchers used standardized reading and math scores (obtained from schools) for a sample of Baltimore children and matched them to identifying information for the MTO subjects. Despite data limitations, the results revealed statistically significant improvements for the treatment group. However, in the early research, no direct educational testing of children in MTO families was conducted. Such testing is now under way, and results should become available in 2004.

There Have Been Declines in Juvenile Crime

In another Baltimore study, researchers using outcome measures from juvenile arrest records taken from administrative (police and court) data reported that providing families with the opportunity to move to lower poverty neighborhoods reduced arrests for violent criminal behavior by teenagers in those families. They showed that one to one-anda-half years after random assignment, arrests for violent crime of male juveniles in the treatment group declined relative to those in the control group. But the difference for boys from the Section 8-only group was not statistically significant. Reductions in robbery accounted for about half of this decline. The research also examined whether teens in the treatment

Table 2
Early Evidence of MTO Impacts—Outcomes for MTO Children

Type of Impact	MTO Site	Population	MTO Treatment Group	Section 8 Comparison Group	In-Place Control Group
Differences in child behavior ^a	Boston	Children ages six to fifteen in households in MTO as of 5/96			
Percentage with seven behavior problems, boys			23.6**	21.3**	32.6
Percentage with seven behavior problems, girls			17.0	14.3	19.3
Percentage with at least one close friend in neighborhood, boys			73.8	72.8	74.7
Percentage with at least one close friend in neighborhood, girls			67.7**	63.3**	82.3
Differences in child health ^a Percentage with any asthma attack requiring medical attention in past six months Percentage with any accident or injury requiring medical attention in past six months	Boston	Children ages six to fifteen in households in MTO as of 5/96	4.7* 4.6*	9.4 6.8	9.8 10.5
Differences in number of arrests per 100 juveniles ages eleven to sixteen ^b Arrests for violent crimes	Baltimore	Children ages eleven to sixteen in all MTO households	1.4**	1.6*	3.0
Differences in school test scores ^c	Baltimore	Children ages five to twelve in all MTO households			
Elementary school CTBS percentile reading scores Elementary school CTBS percentile math scores			32.47** 36.25**	31.52** 30.25	25.13 28.77

Notes: MTO is the Moving to Opportunity for Fair Housing Demonstration; CTBS is the Comprehensive Test of Basic Skills. Differences reported are based on intent-to-treat comparisons (full group) rather than adjusted treatment-on-treated results.

^aSource: Katz, Kling, and Liebman (2001, Table 6).

^bSource: Ludwig, Duncan, and Hirschfield (2001, Table 3).

^cSource: Ludwig, Ladd, and Duncan (2000, Table 6).

^{*}Statistically significant difference from in-place control group (intent-to-treat effect) at p less than the .10 level.

^{**}Statistically significant difference from in-place control group (intent-to-treat effect) at p less than the .05 level.

group had higher rates of property-crime arrests relative to the control group. The result was not statistically significant once differences in preprogram characteristics were controlled. The issue of whether or not property crime increases in receiving neighborhoods has been raised repeatedly by opponents of mobility programs (see, for example, Husock [2000]), and it is an ongoing research issue for MTO.

4.3 Outcomes for Adults in MTO Families

There are also some significant early impact findings on the well-being of MTO adults (Table 3).

Table 3
Early Evidence of MTO Impacts—Outcomes for MTO Adults

	MTO Site	Population	MTO Treatment Group	Section 8 Comparison Group	In-Place Control Group
Health effects					
Differences in depressive behaviors ^a	New York	All mothers in MTO through 12/31/98			
Percentage unhappy, sad, or depressed			33.0**	46.2	50.6
Differences in adult health ^b	Boston	Adults in MTO as of 5/96			
Percentage reporting overall health is good or better			69.3**	74.0**	57.8
Welfare and labor market effects					
Differences in welfare and labor market effects for household heads ^c	All sites	Adults in MTO surveyed via 1997 long-form canvass ^d			
Average percentage on welfare			58.0	58.0	57.0
Average percentage employed			35.0	34.0	37.0
Average number of weekly hours worked			33.3	31.5	33.9
Differences in rate of welfare receipt ^e	Baltimore	Adults in all MTO households			
Average percentage of household heads on welfare during thirteen quarters after random assignment			38.0**	41.0	44.0
Differences in weekly hours worked $^{\rm f}$	Los Angeles	Adults in MTO as of 12/18/96	33.1*	37.2*	26.8
Differences in adult economic outcomes ^g	Boston	Adults in MTO as of 5/96			
Percentage adults receiving public assistance seven to nine quarters after random assignment			49.9	46.0	49.5
Percentage adults with employment earnings seven to nine quarters after random assignment			44.4	46.3	43.4

Notes: MTO is the Moving to Opportunity for Fair Housing Demonstration. Differences reported are based on intent-to-treat comparisons (full group) rather than adjusted treatment-on-treated results.

^aSource: Leventhal and Brooks-Gunn (forthcoming, Table 6).

^bSource: Katz, Kling, and Liebman (2001, Table 9).

^cSource: Goering, Feins, and Richardson (2002).

^dThe long form was administered to households participating in the MTO under the original random-assignment ratio.

^eSource: Ludwig, Duncan, and Pinkston (2000).

^fSource: Hanratty, McLanahan, and Pettit (2001, Table 8).

gSource: Katz, Kling, and Liebman (2001, Table 7).

^{*}Statistically significant difference from in-place control group (intent-to-treat effect) at p less than the .10 level.

^{**}Statistically significant difference from in-place control group (intent-to-treat effect) at p less than the .05 level.

Adults Have Experienced Improved Physical and Mental Health

In New York, parents in the MTO treatment group reported significantly better health and emotional well-being than those in the control group, while Section 8 comparison-group parents enjoyed more modest improvements. Treatment-group mothers were much less likely to report being depressed or feeling tense. Treatment-group parents also provided more structure for their children and were less restrictive in parenting. These effects were measured using standard batteries of interview questions, developed and tested in previous child and family research. Improvements in adult health were found in Boston, too. There adults in both the treatment and regular Section 8 groups were more likely to report that their overall health was good or better. There were also indications of reduced stress.

Changes in Welfare Status and Wages

When MTO was designed, it was expected that moving from a high-poverty community to a low-poverty community would have a gradual positive effect on employment for adults, since social science evidence suggests that a complicated set of factors is involved in improving the work situations and wages of inner-city minority families. Job discrimination in new communities, poor access to jobs by public or private transportation, and limited human capital (skills) all could be involved in constraining the possibility of a poor person's obtaining a better paying job (O'Regan and Quigley 1999, p. 458). Simply relocating families to a community whose residents are employed at good jobs will not necessarily, or quickly, translate into increased human capital for newcomers. Nor did the Gautreaux research suggest that poor families from public housing could be easily or quickly absorbed into local labor markets, particularly given the decline in the 1980s of well-paid jobs available to persons with limited education and skills (Duncan and Rodgers 1991, p. 549).

When MTO was authorized, there was also little expectation for major reform of welfare laws. However, following the end of the Aid to Families with Dependent Children program, and the inception of the Temporary Assistance for Needy Families program, the number of families on welfare nationwide dropped by roughly half, at least partially as a result of the enactment of new welfare statutes (Schoeni and Blank 2000; Weaver 2000). In 1994, 5.5 percent of the total U.S. population was receiving welfare, while by 1999 the proportion had declined to 2.3 percent (Kaushal and Kaestner 2000).

Before MTO began, only 44 percent of single mothers nationwide were employed; by 1999, the proportion had increased to 65 percent. This transformation is the subject of several major research projects that are investigating whether former welfare recipients, like most of the MTO family heads, are leaving welfare for work (Kaushal and Kaestner 2000, pp. 2-3). And this transformation may have affected participants in MTO across all three randomly assigned groups.

Have MTO mothers experienced any changes in their welfare and economic situation? Research on the wage growth of low-income workers suggests that only modest changes can be expected. Low-wage workers typically earn wage increases of only 4 to 6 percent for a year of full-time employment, and such increases are often less for both black men and women (Gladden and Taber 2000, p. 189).

MTO researchers at two sites have examined these issues (Table 3). Researchers in Baltimore used state unemployment insurance records to learn whether MTO families there had experienced any detectable change in welfare status or earnings. Their data covered the period from 1985 to 1999, or an average of 3.8 years of post-program information on the MTO families. The researchers found that the number of treatment-group families on welfare during the post-program period was 6 percentage points lower than the number for the in-place control group. In addition, the Section 8 comparison group's rate of welfare receipt was 5 percentage points lower than that of the in-place control group in the first program year. This latter margin dissipated in subsequent years, while the gap between the treatment and control groups grew to nearly 10 percentage points by the third year. That is, assignment to the treatment group reduced welfare receipt relative to controls—but assignment to the Section 8 group had little effect beyond the first year.

The researchers did not, however, find any significant change in either employment or earnings. This was somewhat unexpected, since the treatment group reported in interviews that there were better job and training opportunities in their new neighborhoods (Ludwig, Duncan, and Pinkston 2000, p. 31). The authors conclude that "these differences in welfare-to-work transitions are . . . not reflected in quarterly earnings data from the state UI [unemployment insurance] system, because many of the jobs and earnings changes are not captured by the UI data" (p. 29).

In Boston, the receipt of public assistance by MTO families dropped by half, and employment for all groups increased by more than half. Employment rates for the full MTO population increased from 27 percent at the time of baseline interview to 43 percent one to three years later. However, the MTO treatment had no significant impact on the employment or

earnings of household heads, as revealed in Massachusetts administrative earnings data on household heads. Nor did MTO treatment affect welfare receipt in the three years after random assignment up through December 1998.

Multisite data from the 1997 MTO canvass also serve as a test of short-term impacts of MTO on employment, public assistance, hours worked, and weekly wages for heads of household. The data show that an average of 2.4 years after random assignment, substantially more heads of household across the sites were employed, and many fewer were receiving public assistance. Employment rates for MTO heads of household rose 14 percentage points in that interval, while public assistance rates fell 16 percentage points. However, Table 3 shows that despite (or perhaps because of) these dramatic changes in employment and welfare rates, there was no significant difference between the three groups in terms of employment rates, hours worked per week, or use of public assistance at the time of the 1997 canvass.

5. Current Research Limitations and Future Research Needs

There are a number of limitations to the MTO design and research that need to be kept in mind in evaluating the study results reported earlier in this paper. The families who volunteered to join MTO were somewhat different from others in the same public-housing developments that chose not to join. In addition, PHA screening requirements may have caused some families to decide against applying, thus eliminating a number of other families during eligibility determination. Moreover, the relatively low lease-up rates achieved for both of the random-assignment groups receiving Section 8 certificates or vouchers are important because ITT effects are measured across entire groups. The effects of better neighborhoods can only be experienced by families who move and—for the group as a whole—such effects are "diluted" by the portion of the group that does not move. Thus, the lease-up rates are also central to the detection of program effects.

There are also limitations to a demonstration program that delivers benefits to only half the families who join. The regular Section 8 lease-up rate for MTO families was only 60 percent, considerably lower than the rate in the overall program in the same cities at that time. The lease-up rate for the MTO experimental group was lower still. Comparing just the experimental and regular Section 8 groups, Shroder (2002) estimates that for the MTO demonstration as a whole, the locational constraint—even with effective counseling—

reduced the probability of lease-up by roughly 14 percentage points.

Also, in the period of MTO enrollment, particularly 1994-95, central-city crime rates were quite high. Drive-by shootings, gang wars, and drug-related violence were a common feature of life in the neighborhoods where MTO families were living. These phenomena likely affected the motivation to join MTO and may well have made people more interested in joining the demonstration than they might otherwise have been.

Another consequence of MTO's mid-decade timing was that the census data used to identify high-poverty areas (from which to recruit families) and low-poverty areas (to which experimental group families could move) were outdated. MTO housing counselors in MTO sites frequently raised questions about the suitability of certain census tracts that technically met the low-poverty definition. Use of the poverty rate as the sole criterion for identifying opportunity areas also has limitations, and this may have been particularly misleading at mid-decade. When census 2000 tract-level data become fully available in 2002, it may turn out that some of the areas chosen by experimental-group families were not actually low-poverty communities.

As noted earlier, because each of the initial MTO research studies was based upon a unique design, results are often applicable to only one MTO site, and sample sizes are quite small. As tests of statistical significance are strongly affected by sample sizes, it is possible that different conclusions would be reached in MTO research if the tests could be conducted on larger, multisite samples.

Certain other aspects of the demonstration's implementation also limit the ability to generalize from MTO results. In MTO, the treatment received by families assigned to the experimental group included both a location-restricted housing voucher and some form of counseling to assist in leasing-up. The services provided by the nonprofit counseling organizations to the treatment-group families varied in breadth, depth, and intensity across the sites (Feins et al. 1997), a factor that might lead to some differences in program impacts. For example, differences in counseling affected lease-up rates (Feins et al. 1997; Shroder 2002) and perhaps also affected how well families in the treatment group adapted to their new neighborhoods and how long they remained in low-poverty areas. In three sites, a single nonprofit provided counseling throughout the demonstration period. The effects of any distinctive practices at these three agencies could easily be confounded with the effects of the site-specific housing market and other factors.

Finally, while considerable evidence has been gathered from the work of the early research teams about what changes have occurred as a result of participation in MTO, little is known about *why* and *how* these changes took place. That is, there is currently a dearth of information about the neighborhood processes related to reported outcomes.

Yet larger samples and a clearer understanding of causality are not sufficient for MTO to be counted among the small number of successful policy experiments. Crane (1998, pp. 1-2) lists the criteria he judges relevant in deciding whether a new social program has been successful. These include "unusually convincing evidence that the program delivers substantial benefits regardless of cost . . . convincing evidence of long-term effects; and new hope of making progress to solve a seemingly intractable social problem." He also includes measures of the program's cost-benefit relationships as another central concern.²

For MTO to be counted a clear policy success, it must demonstrate major long-term impacts achieved in a cost-effective manner. MTO's average counseling costs of roughly \$3,000 per family (those who leased-up a unit) would need to be offset by evidence concerning reductions in such expenditures as health care costs, unemployment, welfare enrollment, crime reduction, improvements in educational attainment and labor force engagement, and other measurable impacts. MTO's long-term research plan, as it is currently configured, has the capability to generate the evidence necessary to assess how well the program works.

5.1 The Next Stage in the Evaluation of MTO's Effects

Before discussing the specific issues and questions that appear to warrant further inquiry, it is helpful for the reader to appreciate that MTO was designed with a research plan consisting of a number of stages of interconnected data collection and analysis. Each stage is oriented toward the completion of a final impact evaluation and data release. The first stages have either been completed or have received funding from HUD and other agencies. Design and implementation, including random-assignment procedures, were completed by 1998. The results from the small-grant research projects at each of the five MTO locations are reported in this paper. Two waves of regular surveys of MTO families to determine their current location have already been conducted.

Recently, a multimillion-dollar midterm evaluation has been funded and is under way. The only remaining portion of the MTO research plan is the final, longer term impact assessment. In the following section, we briefly outline suggestions as to the key research and evaluation issues that

emerge from the first set of analyses of the outcomes from the MTO experiment.

For Which Social Outcomes Are There Comparable, Statistically Powerful Results?

Persevering to make full use of the longitudinal character of MTO's panel design will permit, for the first time, the answering of questions about the power and role of neighborhoods in affecting the lives of deeply poor families across all five MTO sites. The next stage of research will make use of standardized, common instruments—rather than the unique research plans and instruments that were used in the first stage of MTO research. The full MTO sample can be used to learn whether statistically meaningful effects occur across all sites and what those effects are. This analysis will permit an understanding of whether there are major differences between types of families and the sites in the ways in which families respond to the MTO treatment.

Are the Changes in Parents' and Children's Lives Long-Lasting or Reversible?

Time will also permit us to understand the extent to which any positive effects persist, diminish, or grow in strength. It is unclear whether we can confidently predict that once a child or parent has achieved some degree of positive improvement in, say, employment, health, or education, that these changes will continue. Are parents' and children's lives permanently and irreversibly altered by MTO, or is there some degree of reversal or "backsliding"? Do treatment-group children's futures dramatically improve as they move on to college and better paying jobs compared with their control-group colleagues? Or does the appeal of low-poverty areas wear thin? And do families retreat to their former, more familiar communities? Do the appeal and benefits of more affluent neighborhoods become depleted if parents' isolation and loneliness overwhelm them?

Will Parents as Well as Children Benefit from, or Be Harmed by, MTO?

The bulk of the research reported in this collection suggests that children's and teenagers' behavior and health have more likely benefited from MTO than have their parents' behavior

and health. Although many mothers feel better and appear more positive about their futures, we still do not know if previously unemployed adults' employment situations and wages will improve. The absence of any experimental change in labor-market outcomes is an area where more time might result in learning whether this crucial outcome is amenable to MTO-driven change. Perhaps MTO was not the right, or sufficient, demonstration to improve the employment potential and incomes of deeply poor mothers because we know from studies of labor-market programs that there are a host of complicated interventions that might be required before we can legitimately expect to see major improvements in the job situations of low-income adults from poor communities (Haveman 1994; O'Regan and Quigley 1999, pp. 458-9).

The opposite of these questions is clear: will MTO prove harmful to significant numbers of adults or children? Will mothers or grandmothers who moved from their former neighborhood find themselves lonely and isolated in a community without friends, religious groups, or other familiar ties that they spent decades acquiring? Will teenagers be subjected to more police scrutiny and risk as a result of moving to areas unaccustomed or resistant to their presence? Will landlords in the new communities treat their new Section 8 tenants with indifference, or worse? What, if any, harm has been caused to families who moved, how severe is it, and how long-lasting might the effects be?

Why Have Changes Occurred?

For many of the statistical and quantitative statements in this collection, we have only a limited sense of why they have happened. Quantitative measures of school, health, and criminal outcomes do not tell us the reasons for positive change and personal transformation. Why have teenagers in Baltimore stopped committing as much violent crime? Why has there been a decline in asthma cases in Boston? How did younger children in the treatment group achieve such improvements in their reading tests? Ellen and Turner (1997) are also curious about what has caused families' lives to change, and to what degree their neighborhoods are the cause. Qualitative or ethnographic research is one tool needed to look inside the "black box" of experimental effects to understand better those institutions, networks, and processes that have leveraged change in adults, children, or both.

Will There Be Any Significant Negative Impacts on the Surrounding Neighborhood?

Galster (forthcoming), among a number of social scientists, asks whether MTO families might affect the overall rate of problematic behavior in both the sending and the receiving neighborhoods. He assumes that moving those families will not have a major impact, but wonders whether the move of a low-income family from one neighborhood to another will result in a corresponding shift of problematic behavior from sending to destination neighborhoods. Are changes in socially problematic behavior "capitalized" into corresponding changes in neighborhood property values, and thus indirectly measurable through these means? Is there a neighborhood concentration "threshold," he asks, of low-income families, after which rates of problematic behavior increase (Turner, Popkin, and Cunningham 2000)?

Has MTO done any measurable harm to the communities into which MTO families have moved that can be causally attributed to the demonstration? Can an impact on the tiny scale of the MTO movers, roughly 285 families in each of the five sites, be detected reasonably amidst the welter of other social, economic, racial, and attitudinal alterations that normally occur in the life-course of any neighborhood?

It is essential for future researchers to develop measures of actual or perceived impacts to address how the receiving communities or neighborhoods react to small numbers of low-income, largely minority, public-housing families. We may learn that the receiving community neighbors and neighborhood organizations are not all alike (Guhathakurta and Mushkatel 2002). They might well have different thresholds of tolerance and acceptance for children and adults of varying racial and ethnic groups, depending on their own racial and ethnic composition, their perceived vulnerability or susceptibility to other changes, and their access to social resources and programs that might be useful to new families.

5.2 Understanding the Costs and Benefits

One potential result of future research will be a clearer understanding of the net costs of an MTO program, including an appreciation of savings that result from improved outcomes for treatment-group families. How does the cost of MTO counseling compare with other social and economic costs and benefits to families? Are improved test scores, lower levels of welfare use, and lower violent crime rates common across all sites? If so, what do these improvements "save" government agencies compared with the higher costs for treatment-group families (Johnson, Ladd, and Ludwig 2001)?

At the end of this research, it will likely be important to recall that experimental research projects will almost certainly have problems of external validity. Manski (2000, p. 126) has cautioned, "the groups whose interactions are observed are formed artificially for the sake of the experiment. This raises obvious questions about extrapolating findings from experimental settings to populations of interest." Higher levels of attention by PHAs to tenants during the recruitment stage of a demonstration such as MTO may result in attracting families unlike those not involved. There is some risk, therefore, that results that emerge from MTO may not readily translate into a national program for remaining families. "It may be hazardous to generalize from the treatment effects on members of the experimental sample to some larger population" (Shroder 2000, p. 256).

6. Policy Issues and Concerns

One response to this paper's positive results might be to build the MTO model into something closer to a national program to link intensive housing counseling to geographically limited housing vouchers. To others, the improved level of employment reported for *all* MTO families may reflect the impact that macroeconomic improvements can have on the lives of most Americans, suggesting that overall economic improvement is a policy priority (Haveman 1994, p. 440; Danziger 2002). Yet some may find the single-site results reported within this collection unpersuasive. Should MTO, then, be abandoned as a policy option, or is there enough relevant information to warrant proposing that MTO be adopted on a more permanent basis as a tool for local housing agencies?

An important predicate for attempting to answer these questions is to appreciate the fact that HUD was implementing alternative opportunities for public-housing families at the same time that MTO was being implemented. Among the key alternative policy options was, and is, the Hope VI program.

6.1 The Option to Stay: Rebuilding Inner-City Projects

A necessary part of the context for appreciating MTO's design and implementation was the fact that it was not "the only game in town" for public-housing families in 1994. One of the parallel programs whose purpose and implementation directly, if inadvertently, affected MTO was an initiative demolishing many of the worst public-housing projects in larger cities—the very projects from which some MTO families would be enabled to move. The new program was Hope VI.³ The program's goal was to enable families to relocate, using Section 8 so that some proportion of them would return to their old communities after their public-housing buildings had been fully refurbished.

With congressional backing, HUD provided funding for Hope VI to demolish the most troubled urban public-housing projects and replace them with rebuilt mixed-income communities. The initial goal was to tear down roughly 100,000 units (U.S. Department of Housing and Urban Development 1996). Such rebuilding efforts, however, encountered problems in regenerating their communities. In part, this was because the communities remained troubled with crime and gangs, relocation efforts were sometimes badly managed, and some tenants resisted efforts to move them from their familiar neighborhoods (Popkin 2000, pp. 181-90).

In several cities that were selected for MTO, families had the choice of remaining or returning to a remodeled public-housing development. MTO-eligible families, beginning in 1994, frequently knew that they had the choice to stay and wait for better housing or to relocate. Families in Boston, for example, had seen the drawings of their soon-to-be-refurbished public-housing development and often opted to remain because the refurbished housing appeared attractive. In Baltimore, several family housing projects near the downtown core of the city were being demolished and replaced with mixed-income housing as MTO began tenant selection. Some families told us they preferred to remain and see what would result.

MTO was not designed to be the "silver bullet" to end ghetto poverty, nor was it intended to be the only choice available to public-housing residents. It was but one of a set of choices that public-housing applicants and residents could and should be offered, including the right to stay in place and the option to move into nonpoor neighborhoods (Brown and Richman 1997; Downs 1994, pp. 112-4). Whether the outcomes of Hope VI will result in a net advantage for former residents is yet to be determined (Salama 1999; Goetz 2000; Dimond 2000, p. 260). Perhaps Hope VI and MTO will only work best in aiding residents when larger policies and economic forces including welfare reform and a strong economy—provide simultaneous reinforcement (Weisberg 2000). Only time and carefully conducted research will provide answers to the question of what mix of rebuilding and mobility is right for particular cities and families.

6.2 Going "to Scale"?

Perhaps the most frequently asked question when MTO is discussed among social scientists and policy analysts is what might "bringing MTO to scale" be like? Thompson (1999, p. 126), for example, appears certain that MTO could not become a general, large-scale program—at least in the New York area. "Given the fierce resistance," he argues, "to even modest public-housing development in nearby Yonkers, the notion that significant portions of the NYCPHA [New York City Public Housing Authority] population could be integrated into Long Island and Westchester is fanciful. Political problems aside, HUD's entire \$70 million national MTO budget would have only a minor impact on deconcentrating public housing in New York City."

Political opposition and costs have been familiar obstacles to prior HUD efforts to promote either economic or racial mobility. Heclo (1994, p. 422) also reminds us of this: "dealing in any realistic way with this socioeconomic catastrophe (poverty) is going to be costly and will demand a long-term commitment to people whom many Americans would not want as neighbors. This is the dirty little secret buried in the shelves of social science poverty studies."

Another potential obstacle to the future of a demonstration like MTO is what future the Section 8 program will have. Husock (2000), a frequent critic, states that "in the blue-collar and middle-class neighborhoods where voucher holders increasingly live, longtime residents hate the program. It undermines and destabilizes their communities by importing social problems into their midst. . . ." Part of his solution is to leave families in conventional public-housing projects fixed so that residents would be both time-limited and required to get "instruction in parenting." If this does not work, he argues, "no system at all would be better than Section 8 vouchers." Such criticism, however, now appears to be marginal to the mainstream public policy debate over federal housing policy.

There are, however, fairly constant complaints about undue concentration of voucher recipients. There is the growing sense that the Section 8 program, left to its own devices, will create submarkets or niches within which Section 8 families will be served—just as project-based housing has done (Stegman 2000, p. 93). If, and as, the Section 8 program continues to grow, it may be subject to increasing criticism for contributing to such concentrations of poverty. The program seems likely to need a new generation of policy tools to help families who wish to move to communities with lower levels of poverty.

In addition, some worry that the regular Section 8 program already has too high a level of failure in moving families into private rental apartments. Even the fact that only 80 to

85 percent of families can lease-up under the regular program appears a cause for concern. Stegman (2000, p. 93), for example, argues that "because a voucher can be a ticket out of a ghetto into a middle-class neighborhood, with better schools and services, we should be concerned about the 15 percent of families who cannot use their voucher to find acceptable housing in the private sector." How to promote access to better neighborhoods and to also increase lease-up rates is a major part of the ongoing policy conundrum for which MTO does not provide an answer. Lease-up rates of roughly 50 to 60 percent are not the solution to moving large numbers of families promptly into the rental market.

There is then an explicit policy trade-off between getting needy families into private rental housing quickly at a high lease-up rate versus getting them access to low-poverty areas at a lower success rate. If, for example, a family with average characteristics in a city like Los Angeles can receive regular Section 8 assistance with no counseling services, it has a leaseup probability of roughly 70 percent based upon MTO evidence. If, however, another MTO family receives the highest intensity counseling services and is required to lease-up in a low-poverty area, its lease-up probability is roughly 50 percent—a 20-percentage-point reduction. This appears to be a considerable cost. Whatever positive results are traded off against it, the decisions about MTO's future will not be simple. Some families will rightly be unwilling to voluntarily cede their ability to locate in higher poverty areas except on the same basis that they did in MTO; that is, they would otherwise have no access to a Section 8 subsidy.

To address the policy question of whether the lease-up rates in MTO were "too low," current evidence is needed about how well the general Section 8 program succeeds in leasing-up families without any restrictions or counseling assistance. How well does the regular program succeed in cities such as New York and Los Angeles? A recent report suggests interestingly that there has been a notable overall drop in the ability of families to make use of their rental vouchers (Finkel and Buron 2001). Lease-up rates declined from more than 80 percent in 1993, just as MTO was being planned, to only 69 percent in 2000. The report notes that, "PHAs generally attribute the decline in success rates between 1993 and 2000 to a tightening of rental markets during the intervening years" (Finkel and Buron 2001, p. 1). While the national rate was roughly 70 percent, lease-ups in New York and Los Angeles occurred at, again, a reduced rate. In New York, only 57 percent of families, and in Los Angeles, only 47 percent, were able to find and lease a rental unit. The MTO lease-up rate in Los Angeles (averaged over several years), surprisingly, was higher, at 61 percent, for the treatment group, while in New York it was somewhat lower, at 45 percent.

Finkel and Buron (2001) also explore the types of program activities that occurred alongside tightening markets. Local agencies that required tenant screening and counseling typically achieved higher rates of lease-ups compared with those that did not (Finkel and Buron 2001, pp. 3-19). It appears clear from this evidence that lease-up rates are constrained by larger market forces but are also, within some margin, malleable. Programmatic tools and interventions appear relevant and reasonable for assisting tenant clients to find a rental unit in a timely manner. The MTO intervention appears less anomalous and boutique-like under tightened market circumstances.

An additional part of the answer to whether lower lease-up rates are an acceptable cost of administering an MTO-like extension will rest on clear research evidence of the effects that lower poverty neighborhoods will have on Section 8 families' futures. If it should turn out in the 2000 census that the neighborhoods to which many regular Section 8 families moved are in deep poverty and distressed, and we become reasonably certain that the long-term prospects for these families are not good, the option to expand MTO will become more attractive. That those tenants may be slightly better off than they would be in public housing will mean little, since their opportunities for positive change are seriously constrained. Thus, there would be little self-sufficiency gained from such higher lease-up rates.

If MTO treatment-group families are shown to still be living largely in low-poverty locations that now look notably better than those into which regular Section 8 families moved, and if positive outcomes continue, there should be less opposition to allowing local jurisdictions to offer an MTO-like counseling effort—with some restrictions on vouchers to move into low-poverty areas. Should treatment-group families look much better off than in-place public-housing families, the arguments in favor of an MTO-like expansion could appear even more appealing.

Researchers will also need to debate which of several possible administrative agencies are best suited to deliver MTO-like Section 8 assistance. Some will argue that the 1930s-era PHAs are outmoded and ineffective mechanisms for responding to interwoven housing and employment needs on a regional basis. Housing programs, such as Section 8, need not be managed by funding the traditional 3,000 or more PHAs. Set-asides of funding could be awarded competitively to those communities that can create effective sets of administrative tools that will permit cost-effective options for regionwide housing mobility as part of their programming.

Better delivery of programs, for example, might be accomplished by linking real estate brokerage services to nonprofit counseling agencies. PHAs might offer income verification and housing inspections if they do so consistently, efficiently, and promptly. Some local PHAs have already recognized the advantages of linking information and services across their wider region, using their annual and five-year plans to assess how to best offer a regionwide, diverse range of neighborhood choices to their clients (Tegler, Hanley, and Liben 1995). State and local PHAs, as well as other program providers, could be offered incentives to make affordable regional housing markets materialize and function at a controlled scale so that the PHAs, local landlords, and neighborhood associations all become comfortable with their role in managing a "fair" share of the city's poor, assisted families (Katz and Turner 2001). Such policy transitions may take a decade or more in communities resistant to the poor and public housing, but they may move more quickly if private organizations, nonprofit groups, and PHAs throughout the region combine their skills and resources.

There need not, then, be one-size-fits-all programming. Funds could be allocated for a three-to-ten-year period with periodic verification required of how well families were provided options for housing mobility out of ghetto projects. Hope VI redevelopment options could be included as part of the mix of choice offered to families, so that options did not remain narrowly limited. Housing policies must be capable of managing multiple program options to meet the needs of local families, since in the past fifty years, one-size-fits-all markets have often proved ruinously inflexible and inept (Haveman 1994, p. 444; Downs 1994, p. 99).

MTO evidence to date suggests that only when a range of choices is available to the inner-city poor can agencies begin to effectively undo the damage to those living in concentrated poverty. Subsequently, when careful observation and data collection tell us who chose what action, why, and with what result, we will be more confident that going to scale is a necessary and even cost-effective program option. How might MTO be extended to other cities or expanded to a somewhat larger scale? A few preliminary policy suggestions to support the decision to increase the size and scale of an MTO-like set of program requirements and restrictions follow.

Do It Slowly and with Greater Public Involvement

Among the lessons from neighborhood opposition to MTO in one Baltimore suburb in 1994 (Ihlanfeldt 1999) is the sense that with better notice to the affected communities, and at a slower pace, opposition might have been lessened if not altogether mollified. The hurry to implement the demonstration meant that the normal caution that might be expected to accompany

a racial and class integration program was not taken by either HUD or the local administering agencies. The explicit and upfront exclusion of areas that did not have 10 percent or less poverty should have been announced and publicized more clearly, because a nontrivial number of protestors came from areas that were not eligible sites for MTO family relocation.

Explain It Better

The imbroglio in Baltimore County in the first months of MTO's existence suggests that HUD and local PHAs could do a better job of explaining the potential links between any large-scale public-housing demolition programs, such as Hope VI, and MTO housing mobility. Housing mobility options should not become the political patsy for badly administered tenant-relocation programs tied to Hope VI. This may well mean that MTO-like options cannot be implemented concurrently with inner-city demolition programs, or not until the public throughout the region understands and accepts the role that screening and counseling will play in allocating families to their communities. Addressing the complex intersection of race and class will have to be undertaken by multiple levels of government, and on a sustained basis, with MTO-like evidence offering relevant input.

MTO Does Not Appear Appropriate for All, but Can Assist Additional Families

MTO appears not to be suited for everyone. It has attracted certain types of families with specific characteristics and levels of motivation. Motivation helps set movers apart from those who failed to move and appears to be a key to MTO's future (Popkin and Cunningham 2000). Those who volunteered for MTO and then found a private-market apartment are somewhat different from other poor public-housing residents still living in deeply poor neighborhoods. Additional research may help us appreciate the full extent to which MTO families differ from others. This is true for the movers, whose motivations and opportunities enabled them to move to a new neighborhood either as part of the experimental or Section 8 control group. To whom do the positive outcomes found in the research reported in this paper best apply? To what universe of public-housing families do they generalize?

Although MTO does not appear to be a relevant option for all public-housing residents, the fact that thousands of families volunteered for MTO in five cities suggests that they are not alone in their fear of crime and desire to move out of the projects. MTO could be expanded into a program of modest size, offered in a wider range of metropolitan areas and over multiple years, to ensure that the operation of regional counseling and restricted vouchers remains effective.

It is also possible, as MTO's results become more widely established and accepted, that the differences between "volunteers" for any future program and those remaining behind may narrow. Agencies may learn to explain and motivate families better in the sending as well as the receiving communities. This is of course a fundamental, treacherous assumption at the heart of "normalizing" MTO. It is also subject to at least two qualifications:

- Crime rates and interest in MTO: Given the critical importance of fear of crime as a root source for families' interest in MTO, will the apparent decline in urban crime rates since the mid-1990s mean that fewer families will be impelled to seek to get out through an MTO-like program (Blumstein 2000; Fountain 2001)? Or will crime rates return to higher levels and sustain interest in the option to move out?
- Hope VI and enrollments: To what extent will inner-city revitalization programs, such as Hope VI, result in more families wanting to return to their old neighborhoods in newly refurbished housing units? Will the presence of more viable inner-city choices reduce interest in housing options that send families far from their old neighbors?

It May Not Be Relevant for Every City

There is suggestive evidence in MTO site-based research that MTO has worked slightly differently in various regions. For example, an MTO option may appear to be of far greater benefit to families in Baltimore than in Boston. Site differences may prove of interest and importance in subsequent program implementation.

Whether MTO is relevant for a specific metropolitan area may depend on whether the rental housing market includes enough landlords willing to rent to low-income, former publichousing families. In looser markets, more landlords appear available and willing to wait while the local PHA completes paperwork and inspections. In tighter markets, it is clear that Section 8 in general, and more likely MTO, will find it difficult to achieve reasonable rates of lease-up. Analysis of the causes of variation in demonstration effects between sites may help in appreciating the scale and reasons for cross-site variation.

Counseling Appears to Help

Although it is not statistically certain whether the restricted vouchers or counseling had a greater effect in achieving the effects shown to date, housing counseling (Shroder 2002; Finkel and Buron 2001) has benefits in promoting lease-ups in low-poverty areas. Unlike many PHAs, such as New York's, which provide "almost no assistance to tenants in the housing search" (Kamber 2000, pp. 6, 30), an extended MTO option would require that poor families receive help in searching widely enough to make dispersed housing choices possible and meaningful to the family.

Restrictions and the Meaning of Opportunity

There are both pros and cons associated with restricting the use of Section 8 rental assistance to low-poverty communities. Galster's (2002) comments offer reason for policymakers to examine the precise percentages of poverty and affluence that might best facilitate the least harmful process for selecting receiving neighborhoods to ensure that there will never be too many Section 8 families allocated into any one vulnerable area.

It is also important to ensure that 10 percent poor does not remain the sole definition of an area of opportunity. Future expansion of MTO could include labor market and school characteristics as among the variables that can assist in selecting a set of neighborhoods for MTO-like counseling.

Balancing limits or temporary quotas with the principle that Section 8 families should have the freedom to choose whatever neighborhood they would like will require a new generation of policy thinking within both HUD and Congress, especially as long as the Section 8 program continues to serve as "the only (housing) game in town" (Quigley 2000).

Make Timely Use of the Analysis of Costs and Benefits

When future research provides a clearer understanding of the total costs and the social and economic benefits of MTO, policymakers will likely find it easier to justify the cost of funding for additional housing mobility vouchers and counseling. Until that time, improvements in reading scores and reductions in childhood asthma appear to offer adequate justification for allowing PHAs to offer such a choice without waiting. If, in a clinical medical experiment, patients were found to benefit from a trial medication in the way that MTO has allowed, there would likely be justification for permitting other lives to be aided. There remain ample reasons for caution,

but the chance that some children's lives can be substantially improved by the choice of a different neighborhood suggests that additional families should be offered this choice and allowed to decide for themselves.

7. Concluding Observations

Based upon the research reported in this paper, it is possible to draw one clear policy conclusion and one provisional, although important, research conclusion. First, MTO's operations demonstrate that it is possible for HUD and local PHAs to operate successfully an economic and racial desegregation program using Section 8 rental assistance in differing metropolitan markets. It has shown that, on a small scale, you can reverse the historical practice of concentrating poor minority households in poor minority neighborhoods, limiting their housing choices, and exacerbating problems of economic and racial isolation. It is, however, important to note, as the research by Feins (forthcoming) points out, that the lowpoverty neighborhoods into which experimental-group families moved were often heavily minority. MTO was successful in providing a "mixed-income" neighborhood rather than offering communities that are predominantly white. MTO families who moved live in less racially segregated communities than in-place control-group families but, then, the latter live in neighborhoods that are among the most racially and economically segregated in the United States.

Second, preliminary research on MTO's effects on families demonstrates that beneficial, statistically significant changes have occurred in families' lives within two to four years of their participation in MTO. The first phase of MTO research reveals that households in the treatment group, as well as some Section 8 comparison-group families, have experienced improvements in multiple measures of well-being relative to the in-place control group. This has included better health for adults and fewer behavior problems among boys. Treatment-group family members experienced declines in depression and asthma following their moves from public housing, and male children were much less likely to pose disciplinary problems.

In the area of education, despite the potential difficulties of making the transition out of poor neighborhoods and their schools, there is evidence of improvements in one MTO site. Treatment-group children ages five through twelve have experienced substantial gains in academic achievement as measured by standardized test scores, compared with children in the control group. If these results are borne out in subsequent research, the demonstration will have achieved major educational benefits for younger children much earlier

than anticipated. The unclear effects for older children compel further research as part of the cross-site MTO evaluations. Qualitative research conducted in 2001suggests that a number of parents in that sample did not move their children to new schools, but kept them in the schools serving their original high-poverty neighborhoods (Popkin, Harris, and Cunningham 2002). The extent to which families have made moves into low-poverty communities but not taken advantage of "local" resources and institutions represents a crucial question for the next stage in MTO research.

MTO not only provides a clearer understanding of how residential mobility programs can operate, but has clarified the temporally sequenced, quantifiable effects that this change in neighborhood has on the lives of parents and children who would likely otherwise remain in "ghetto" neighborhoods. These changes appear to have occurred in some areas of social and economic life more clearly than in others; and in some cities, more surely than in others.

Achieving improvements in education performance, reductions in criminal behavior, improvements in adults' mental and physical health, as well as a reduction in welfare dependence, is a nontrivial initial policy and research contribution. MTO's ability to document the conditions under which large numbers of poor families' lives may be improved as a result of a change in their neighborhood is potentially among the most significant social science and policy legacies that HUD will have for the next decade or more.

There are, nonetheless, a critical number of important research and policy issues that need to be addressed by future research aimed at clearer appreciation of the consequences of life in high-poverty public-housing developments compared with life in less concentrated Section 8 comparison- and treatment-group neighborhoods. Such research should also

help establish the conditions under which a programmatic extension of the MTO program might best be developed. Knowing in which communities and neighborhoods, and for which types of families, such a program may work best will greatly aid in offering alternatives to life within high-rise, high-poverty communities. If Downs (1999, p. 967) is correct in observing that most efforts to revitalize deeply poor communities through community development have "almost universally failed," then some form of regional housing mobility effort such as MTO is a necessary accompaniment to other development strategies (Katz and Turner 2001).

Some neighborhoods, families, and policy analysts will continue to oppose agencies such as HUD and its Section 8 program to protect what they feel is theirs from perceived or actual threats (Husock 2000). Such opposition can, however, be better managed to reduce its occurrence or effects. The worst consequence of acquiescing fully to such opposition would be to leave in place public housing as a "federally funded, physically permanent institution for the isolation of black families by race and class" (Massey and Kanaiaupuni 1993, p. 120). Heclo (1994, p. 427) sagely reminds us of additional obstacles to expanding MTO: "Full-scale attacks on ghetto poverty will inevitably mean targeting resources disproportionately on minorities. Whether such efforts are seen as pro-black preferences or an act of solidarity with the country's children and its future will depend heavily on how political leaders help educate the public." Few political leaders of either party have done, or have been able to do, much to address this concern. MTO offers policymakers, for the first time, necessary if not yet sufficient evidence that children's lives have been notably benefited and that parts of the "ghetto" poverty problem can be redressed.

ENDNOTES

- 1. For additional details, see Goering, Feins, and Richardson (2002).
- 2. Regarding the latter, he notes: "Determining the cost-benefit relationship is easier said than done. Although the costs are usually easy enough to measure, determining the monetary value of the benefits is often difficult" (Crane 1998, p. 3). See also Brooks-Gunn, Berlin, Leventhal, and Fuligni (2000).
- 3. A National Commission on Severely Distressed Public Housing had, in 1989, recommended a strategy for the elimination of the worst projects in forty of the country's largest cities. The program derived from this recommendation, Hope VI, was enacted at the same time as MTO. Congress allocated \$1.6 billion for this program from 1993 to 1995 (U.S. Department of Housing and Urban Development 1996).

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