

Moving to Opportunity

The Effects of Concentrated Poverty on the Poor
By Jens Ludwig



third way
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NEX T

WHAT'S NEXT?

For many years social scientists and policy makers have been concerned with the possibility that the concentration of poor people in inner city neighborhoods could have an impact on poverty, separate and apart from other factors. In other words, the thought was that families from high poverty neighborhoods were being doubly disadvantaged by their neighborhoods. This theory was so widespread that, starting in the 1970s in Chicago, the government began to move poor families into better neighborhoods. The early evidence was promising enough that in the 1990s the U.S. Department of Housing and Urban Development embarked upon a five city program designed to move poor families out of poor neighborhoods.

“Moving to Opportunity,” as the program was called, offered families in high poverty neighborhoods the chance to move out and to use a rent subsidy to live in a less poor area. Since there were not enough vouchers to go around, the families who volunteered were randomly assigned the vouchers thus creating a perfect controlled experiment.

The following paper by Jens Ludwig, of the University of Chicago, is drawn from a larger, comprehensive evaluation of the “Moving to Opportunity Program” that took place over a ten to fifteen year period in which the families who were able to move out of poor neighborhoods were followed and evaluated. It presents some surprising findings. First of all, in contrast to the expectations of those who created the program, families who moved to better neighborhoods had no better average adult employment rates than those who didn't. The same findings were true for education; after more than a decade, the schooling outcomes for the children in the different groups were nearly identical as well. In other words, the change in neighborhood had no impact on two important aspects of socio-economic progress; jobs and education.

But that doesn't mean there was no impact from the moves. To the surprise of many, the families who moved to less poor neighborhoods had significant improvements in several physical health outcomes. According to Ludwig, “Moving with an MTO [Moving to Opportunity] low-poverty voucher reduced the risk of extreme obesity by about one-third. These MTO moves also reduced the risk of diabetes (as measured by blood samples taken from the program participants) by over 40%.” In addition to increased physical health, moving “reduced the risk of major depression by over one-quarter.”

The Moving to Opportunity study provides food for thought for policy makers. First of all is the importance of designing, where possible, policy that can be evaluated scientifically so that more

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and more social policy is based upon hard evidence. Second is the realization that positive outcomes don't always come in easily measured forms. The government saved money as a result of the HUD experiment, but the money saved was in health care costs avoided—not as easily quantifiable as income increases or improved educational outcomes.

This paper is the latest in a series of ahead-of-the-curve, groundbreaking pieces published through Third Way's NEXT initiative. NEXT is made up of in-depth, commissioned academic research papers that look at trends that will shape policy over the coming decades. In particular, we are aiming to unpack some of the prevailing assumptions that routinely define, and often constrain, Democratic and progressive economic and social policy debates. In this series we seek to answer the central domestic policy challenge of the 21st century: how to ensure American middle class prosperity and individual success in an era of ever-intensifying globalization and technological upheaval. It's the defining question of our time, and one that as a country we're far from answering.

Each paper dives into one aspect of middle class prosperity—such as education, retirement, achievement, and the safety net. Our aim is to challenge, and ultimately change, some of the prevailing assumptions that routinely define, and often constrain, Democratic and progressive economic and social policy debates. And by doing that, we'll be able to help push the conversation towards a new, more modern understanding of America's middle class challenges—and spur fresh ideas for a new era.

Jonathan Cowan
President, Third Way

Dr. Elaine C. Kamarck
Resident Scholar, Third Way

MOVING TO OPPORTUNITY

THE EFFECTS OF CONCENTRATED POVERTY ON THE POOR¹

America's neighborhoods have become increasingly segregated along income lines for the past 40 years.² Nearly 9 million people now live in census tracts (which are basically neighborhoods) with poverty rates of 40% or more. While the Brookings Institution calls these areas "extreme-poverty neighborhoods;" historically most people called such places slums or ghettos. Such neighborhoods also tend to be racially segregated, with high rates of crime and disorder and low quality public services.³

Social scientists have long been concerned with the possibility that the concentration of poverty itself could contribute to the problems of the poor. Put differently, the concern is that poor families who are living in high-poverty neighborhoods are doubly disadvantaged because of the additional adverse effects on their life outcomes from the neighborhood environment itself.

The most famous articulation of this theory came in 1987 when sociologist William Julius Wilson published an influential book called *The Truly Disadvantaged*, arguing that the growing geographic concentration of poor minority families in urban areas contributed to high rates of crime, out-of-wedlock births, female-headed families, and welfare dependency. The exodus of black working- and middle-class families during the 1960s and 1970s from inner-city areas had adverse effects on the poor families left behind in high-poverty areas, Wilson suggested, by eliminating a "social buffer" that helped "keep alive the perception that education is meaningful, that steady employment is a viable alternative to welfare, and that family stability is the norm, not the exception."⁴

This concern about the potential adverse effects of concentrated poverty on the lives of the poor is of more than academic interest. Housing policy affects the geographic concentration of poverty in a variety of ways, including decisions about where and how to build government

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housing projects for the poor,⁵ whether to provide housing assistance to low-income families in the form of housing projects versus housing vouchers that let families rent units in the private market,⁶ and policies that affect the availability of housing for poor families in lower-poverty areas, such as suburban zoning rules.⁷

New research that I have carried out (with others)⁸ raises questions about whether Wilson was right about the effects of concentrated poverty on the earnings, welfare receipt, or schooling outcomes of low-income families living in such areas. The U.S. Department of Housing and Urban Development's (HUD) Moving to Opportunity (MTO) randomized mobility experiment (described below) suggests that concentrated poverty does have extremely important impacts, but not on the outcomes emphasized by Wilson. Rather the impacts are seen in areas such as physical and mental health, and the overall sense of well-being or happiness of poor families.

CONCENTRATED POVERTY IN AMERICA

The concentration of low-income minority families in highly-segregated urban neighborhoods that Wilson wrote about remains easy to see in most American cities. This is particularly true where I live—on the south side of Chicago, in the Hyde Park neighborhood that is home to the University of Chicago. While Hyde Park is quite racially and economically diverse, driving out of my neighborhood in any direction leads to neighborhoods that are 87% black to the south (Woodlawn), 94% black to the north (Oakland), or 97% black to the west (Washington Park). Abandoned buildings, crime, and poverty are all far more common in these neighborhoods than in Hyde Park. Indeed the stark differences across neighborhoods in social composition and social conditions are among the most striking features of American cities.

While our cities remain extremely segregated, it is encouraging that levels of racial segregation peaked in 1970 and have been declining ever since. New research by Harvard professor Edward Glaeser and Duke professor Jacob Vigdor⁹ shows that levels of racial segregation are, by some measures, as low as they have been since 1910.

Given the strong correlation across neighborhoods at a given point in time between racial and economic composition, it is natural to assume that if racial segregation is declining, income segregation must be declining as well. But, surprisingly, that is unfortunately not the case—since 1970 the poor are increasingly likely to live in

neighborhoods populated by lots of other poor families.¹⁰ Research by The Brookings Institution shows that nearly 9 million Americans now live in neighborhoods in which over 40% of all residents are poor.¹¹

Of particular concern is the possibility that public policy has actually contributed to the problem of concentrated poverty in America. For example, the construction of high-rise public housing projects that became notorious nationwide—like Pruitt-Igoe in St. Louis, Robert Taylor Homes and Cabrini-Green in Chicago, the Marcy Projects in New York, or Jordan Downs in the Watts section of Los Angeles—brought together poor families by the hundreds, thousands or sometimes tens of thousands. At the same time, many suburban townships used zoning rules to keep out low-cost housing.

Concern that living in a high-poverty neighborhood might “doubly disadvantage” the poor families residing in them dates back at least to the Chicago School of sociology in the 1920s. As noted above, this concern was renewed with the publication of Wilson’s widely-read book in 1987.

Yet empirically isolating the independent effects of neighborhood environments on the life outcomes of residents turns out to be quite challenging, because most people have at least some degree of choice regarding where they live. A large body of research dating back to the 17th century shows that people who live in relatively more distressed neighborhoods tend to have worse life outcomes than do those people living in less disadvantaged areas, even after statistically adjusting for the characteristics of the individuals and their families that we can measure in our social science datasets. What remains unclear is the degree to which these patterns reflect true *neighborhood effects*—that is, the causal influence of neighborhood environments on the life outcomes of residents—or instead reflect the influence of hard-to-measure characteristics of people or families that lead them to wind up living in different types of neighborhoods—what social scientists call *selection bias*.

THE MOVING TO OPPORTUNITY (MTO) EXPERIMENT

The MTO story begins in 1966 on the south side of Chicago, actually not very far at all from my office at the University of Chicago. The first quasi-experimental evidence to support the idea that neighborhoods may exert large effects on poor families arose from a discrimination lawsuit against the Chicago Housing Authority (CHA) filed on behalf

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of a black public housing resident named Dorothy Gautreaux.¹² As a result, starting in the 1970s a total of 7,100 families were moved into different parts of Chicago that were poor and segregated, but improving, while others were relocated into low-poverty, racially integrated suburbs.¹³

A 1988 follow-up survey carried out by Northwestern University sociologist James Rosenbaum found that moving to the suburbs instead of other parts of Chicago was associated with better job outcomes for mothers and schooling outcomes for children.¹⁴ Rosenbaum's findings were interesting and provocative, but left open the question of whether at least part of the difference in outcomes between Gautreaux suburban versus city movers might not be due to other differences in the characteristics of the families themselves. Follow-up research has provided some support for this concern and has tended to find smaller impacts on family outcomes.¹⁵

The initial Gautreaux findings were nonetheless important enough to motivate HUD to sponsor the first true randomized experimental test of what happens to families when they move into very different neighborhood environments—the Moving to Opportunity (MTO) demonstration. Eligibility for MTO was limited to low-income families with children living in selected distressed public housing or project-based housing in five cities: Baltimore, Boston, Chicago, Los Angeles, and New York. The housing projects from which MTO families came were among the most distressed in the country, with an average tract poverty rate of fully 53%. These projects were also extremely racially segregated. Almost all of the MTO participants from the Baltimore and Chicago sites are African-American, while the other three sites are split about evenly between blacks and Hispanics. There were very few white families in these housing projects, and as a result there are very few whites in the MTO study sample.

Between 1994 and 1998, MTO enrolled a total of 4,604 families. Surveys collected at baseline (Table 1) show just how disadvantaged these families were when they signed up for the MTO program. The average annual household income was \$12,827 (in 2009 dollars). Fewer than two of five MTO household heads had a high school diploma, while three-quarters were on welfare.

Table: Baseline Characteristics¹⁶

	Low-Poverty Voucher N=1456	Traditional Voucher N=678	Control N=1139	All Groups N=3273
Age as of December 31, 2007				
≤ 35	0.145	0.132	0.143	0.141
36-40	0.212	0.236	0.229	0.224
41-45	0.236	0.223	0.234	0.231
46-50	0.184	0.203	0.175	0.187
> 50	0.223	0.207	0.219	0.217
Race and Ethnicity				
African-American (non-Hispanic)	0.631	0.608	0.639	0.627
Other non-white (non-Hispanic)	0.034	0.030	0.035	0.033
White (non-Hispanic)	0.024	0.024	0.025	0.025
Hispanic ethnicity (any race)	0.311	0.338	0.301	0.316
Gender and Marital Status				
Female	0.988	0.978	0.978	0.982
Never married	0.623	0.624	0.637	0.628
Education Characteristics				
High school diploma	0.381	0.347	0.361	0.365
Certificate of General Educational Development (GED)	0.159	0.183	0.199	0.179
Employment and Income Characteristics				
Working	0.271	0.269	0.245	0.262
Receiving Aid to Families with Dependent Children (AFDC)	0.763	0.736	0.763	0.756
Total Household income (2009 \$)	\$12,866	\$12,788	\$12,439	\$12,709
Site				
Baltimore	0.134	0.140	0.135	0.136
Boston	0.201	0.207	0.205	0.204
Household member was crime victim in the last six months	0.205	0.209	0.205	0.206
Los Angeles	0.233	0.214	0.226	0.225
New York	0.227	0.231	0.229	0.229
Neighborhood Characteristics				
Household member was crime victim in the last six months	0.434	0.414	0.416	0.422
Streets unsafe at night	0.493	0.517	0.512	0.506
Very dissatisfied w/neighborhood	0.478	0.477	0.467	0.474
Lived in neighborhood 5+ years	0.599	0.616	0.606	0.606

It is perhaps not surprising, then, that far and away the most important reason families signed up for MTO was safety.

Perhaps the most striking result from Table 1 is that over 40% of MTO applicants had someone in the household victimized by a crime during the six months before the baseline survey. It is perhaps not surprising, then, that far and away the most important reason families signed up for MTO was safety. Three-quarters of MTO applicants said getting away from gangs and drugs was the first or second most important reason they signed up for MTO.

The families that volunteered for MTO were then randomly assigned to one of the following three conditions:

- The *Low-poverty voucher group* was offered the chance to use a housing rent-subsidy voucher¹⁷ to move into private-market housing in lower-poverty areas. As part of the MTO design, the vouchers offered to families in this group could only be redeemed in census tracts with a 1990 poverty rate under 10%. Families had to stay in these neighborhoods for one year. If they moved before the year was up, they would lose their voucher. But after their initial one-year lease was up they could use their housing voucher to move again, including moves into a higher-poverty area. Families in this group also received housing search assistance and relocation counseling from local non-profit organizations.¹⁸
- The *traditional (Section 8) voucher group* was offered a regular housing voucher to move into private-market housing, with no special MTO-imposed constraints on where they could move. Families in this group also did not receive any special housing mobility counseling beyond what is normally provided to voucher-holders.
- The *control group* did not receive access to any new services through MTO, but did not lose access to any housing or other social services to which they would otherwise have been entitled.

Random assignment in MTO helps overcome the self-selection concerns with previous observational (non-experimental) studies by creating groups of families who are comparable in all respects but differ in the housing and neighborhood conditions that they experience. As a result, any differences across groups in their average outcomes can be attributed to the MTO mobility intervention itself.

Not all of the families who were offered a MTO housing voucher used them. Around 47% of those families offered a low-poverty voucher and 63% of those offered a traditional voucher relocated through MTO. While many people outside the housing-policy research community

have been surprised that these take-up rates are as low as they are, these figures are generally similar to what has been found in previous studies of other housing voucher programs.¹⁹

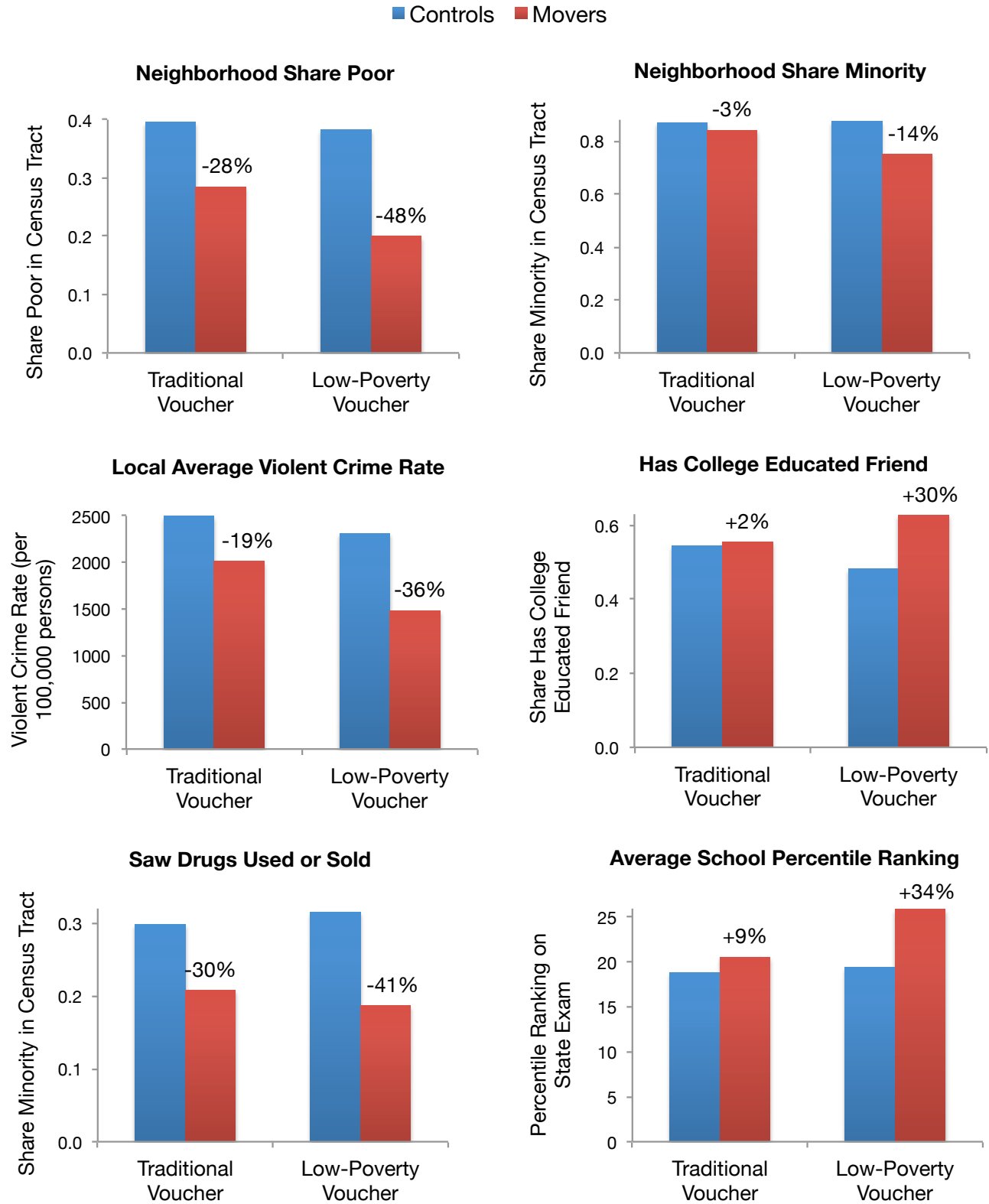
One reason some families do not move is because they cannot find a unit that is affordable under the voucher program rules, within the time limit that the voucher program allows families to search for housing. The difficulty of finding affordable housing in the allowable time may have been particularly challenging for families in the Experimental group, who were restricted to looking in low-poverty census tracts. Some families in the Experimental group did not relocate because they did not attend all of the life-skills counseling sessions that the local non-profit organizations assisting with the housing search required them to complete before looking for housing. It is worth keeping in mind that many of the proposals that have been raised to increase voucher take-up rates may create some difficult tradeoffs for policymakers.²⁰ For example, if the government's total budget for low-income housing programs is fixed, then increasing the voucher subsidy amount available to voucher-holders in order to expand the set of rental units that they could consider would require reducing the total number of low-income families who could receive a housing voucher.

The fact that only some of the families who are offered MTO housing vouchers actually use them does not introduce any selection bias into our analyses.²¹ Families who are assigned to a voucher group who use a voucher are surely different from those who don't. Our research team carried out analyses that generate two types of estimates: (1) the effect of being offered a housing voucher through MTO, known as the "intention to treat" (or ITT) effect and calculated as the difference in average outcomes of all families assigned to one of the treatment groups with all families assigned to control; or (2) the effect of actually moving with a housing voucher in MTO, known as the "effect of treatment on the treated" (or TOT) which is calculated using a method that preserves the strength of the MTO experimental design.²² In the figures that follow, I focus on showing the effects of actually using a voucher (the TOT).

It is also important to keep in mind when reading the MTO findings that the control condition in the MTO demonstration does not correspond to a situation of "no mobility." Families in the MTO control group were allowed to move on their own, even if they did not receive any assistance through MTO to move. In addition, many of the public housing projects in which MTO families were living at baseline were demolished through HUD's HOPE VI and other programs,²³ which further contributed to control-group mobility.

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Figure 1: Neighborhood and Social Network Characteristics by Treatment Group²⁴



MTO'S EFFECTS ON NEIGHBORHOOD CONDITIONS

Figure 1 shows that the MTO demonstration succeeded in generating pronounced and sustained differences in average neighborhood conditions across the three randomized groups. Averaged over the entire 10-15 year study period, families who move with a traditional voucher are in census tracts (basically a neighborhood) with poverty rates about one-quarter lower than that of their control group counterparts, while families who move with an MTO low-poverty voucher are in census tracts that have poverty rates equal to about one-half those of similar control group families (roughly 21% versus 40%).

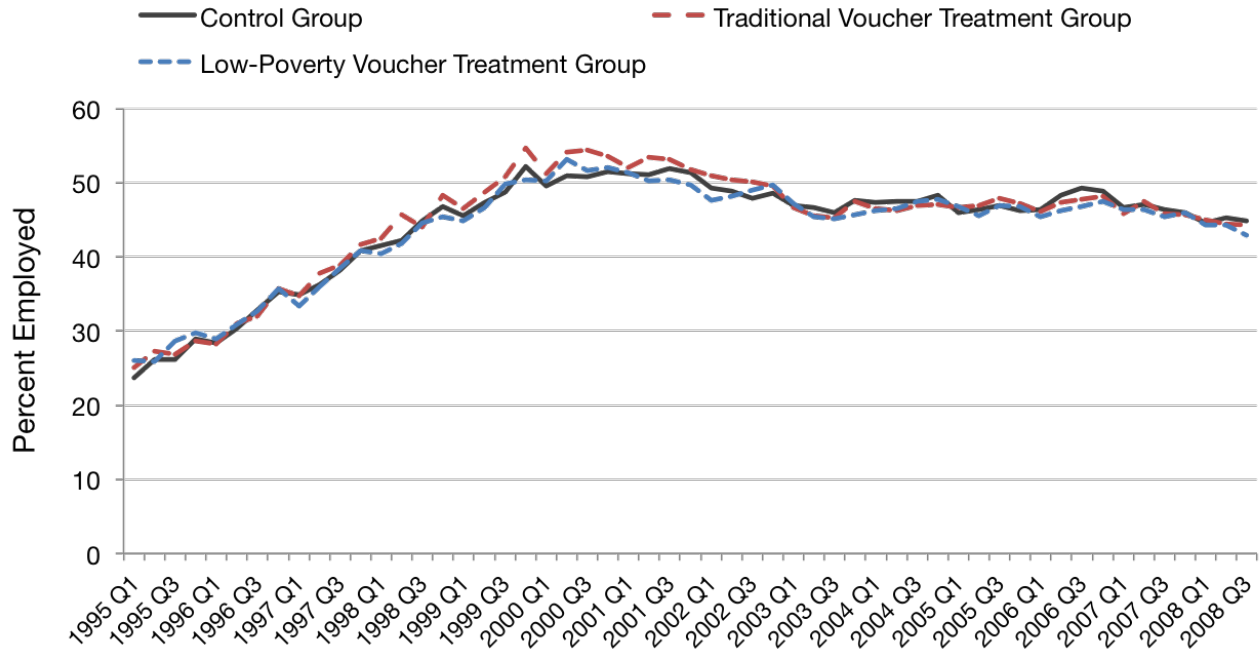
Some readers might think that a 21% neighborhood poverty rate still seems high, but it is useful to recognize that there is an important constraint on our ability to achieve much more economic integration than what we saw in MTO—which is, namely, the sheer amount of poverty itself that we have in the U.S. The average poverty rate in the five MTO demonstration cities is about 20%.²⁵ It is just logically not possible to have everyone in a city live in a neighborhood with a poverty rate below the citywide average.²⁶

While MTO focused explicitly on reducing economic rather than racial segregation for participating families, one might have expected there to be important changes in neighborhood racial segregation as a byproduct of the MTO moves given that residents of high-poverty neighborhoods are very disproportionately likely to be Hispanic or African-American.²⁷ Yet as Figure 1 makes clear, MTO's impacts on racial segregation for participants were modest. The average control group family spent the study period in a census tract that was 88% minority. The tract share minority for those who moved with a low-poverty voucher was lower by a statistically significant amount, but even those who moved with a low-poverty voucher were still living in census tracts in which fully three-quarters of all residents were members of racial and ethnic minority groups. MTO also had very modest impacts on the quality of the local public schools children attended, as indicated for example by school-wide average scores on standardized achievement tests.

Despite the lack of MTO impact on neighborhood racial composition and school quality, MTO moves led to sizable changes in neighborhood social environments that a growing body of sociological research suggests might be important in affecting people's life outcomes.²⁸ Figure 1 shows that moving with a low-poverty voucher increased the

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Figure 2: Quarterly Employment Rate by Random Assignment Group and Calendar Quarter²⁹



Adult employment rates increased overall during the 10-15 year period ... but that the average employment rates were nearly identical.

chances of having a college-educated friend by about one-third, reduced the local-area violent crime rate by about one-third, and reduced the chances of having seen drugs used or sold in the neighborhood by about two-fifths.

WHAT HAPPENS TO FAMILIES WHEN THEY MOVE OUT OF EXTREME-POVERTY AREAS?

The congressional legislation that authorized HUD to carry out MTO explicitly mentioned the goals of improving children’s schooling and adult earnings. With respect to those outcomes the MTO findings were somewhat disappointing.

Figure 2 shows that adult employment rates increased overall during the 10-15 year period over which we followed up with MTO families, but that the average employment rates were nearly identical across the three randomized MTO groups. We also found few detectable differences in schooling outcomes for children across the three randomized MTO groups—even for children who were very young (pre-school age) at the time their families moved through MTO.

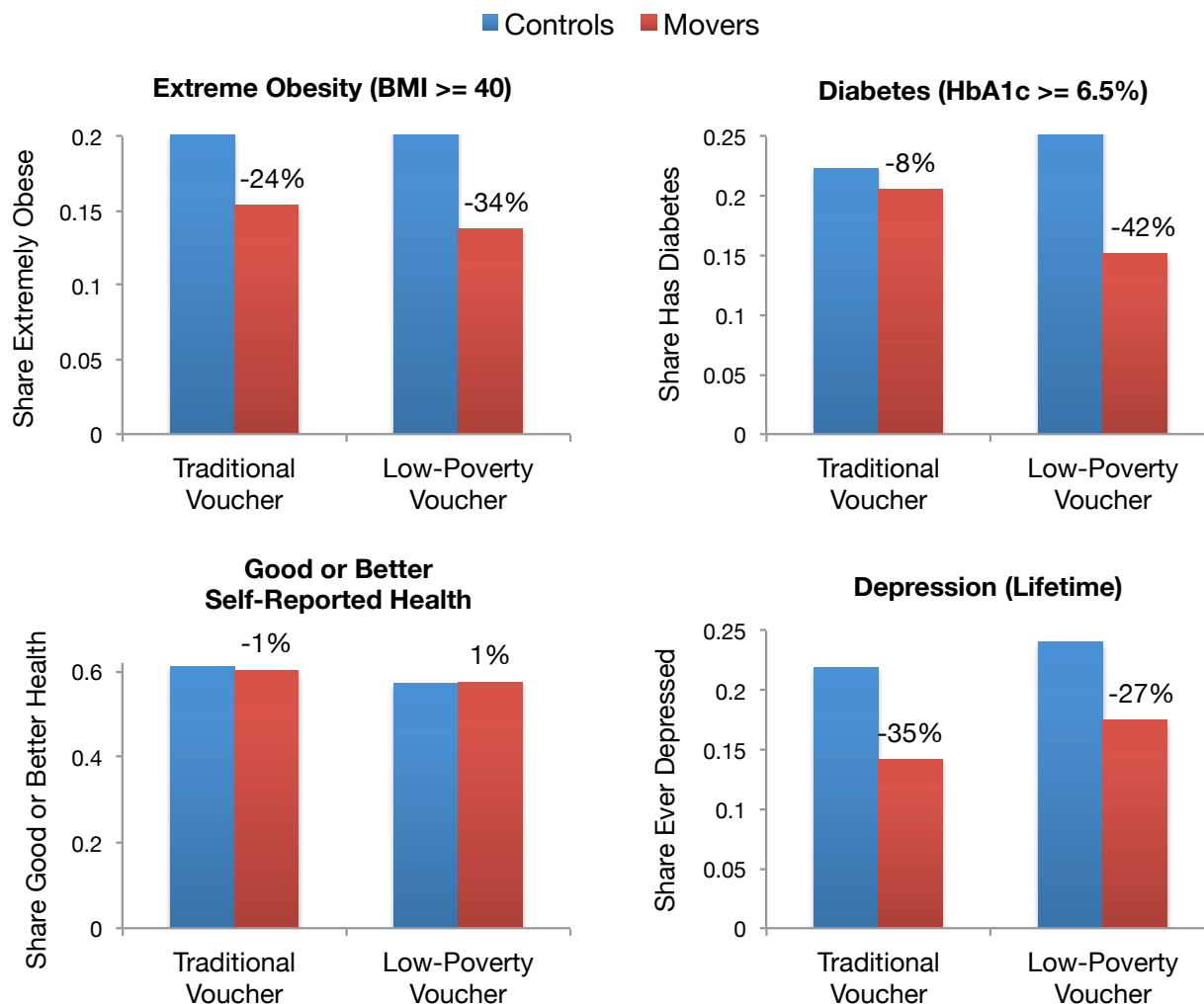
On the other hand, we found that moving to a lower-poverty neighborhood through MTO had very large beneficial impacts on several important physical health outcomes (see Figure 3, which builds on results we

published in October 2011 in the New England Journal of Medicine).³⁰ While MTO did not have detectable impacts on overall self-reported health status, Figure 3 shows that a sizable share of the MTO control group met the public health standard of “extremely obese,” defined as having a body mass index, or BMI (weight in kilograms divided by height in meters squared), of 40 or more. For an American woman of average height (five foot four) this would correspond to a weight of about 235 pounds. Moving with an MTO low-poverty voucher reduced the risk of extreme obesity by about one-third. These MTO moves also reduced the risk of diabetes (as measured by blood samples taken from the program participants) by over 40%.³¹

As a way to think about the size of these MTO health impacts, one of the most pressing public health problems in the U.S. is the fact that obesity and diabetes rates have roughly doubled since 1980. The declines in

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Figure 3: Health Outcomes by Treatment Group³²



The effect on mental health from moving to a lower-poverty neighborhood is not so different from that of taking anti-depressants like Prozac.

prevalence of extreme obesity and diabetes due to MTO are nearly equal to the increase in these problems in the “diabesity” epidemic.

Another way to think about the size of these impacts is to note that they are similar in magnitude to what we see from the leading medical treatments for diabetes, including medication. These sorts of comparisons are always a bit complicated because clinical trials of medical interventions typically enroll study samples that are not nearly as economically disadvantaged as the one that signed up for MTO. But still, the fact that changing neighborhood environments has perhaps the same size effect on diabetes as leading medical treatments that are explicitly designed to reduce diabetes is striking.

We also found very sizable impacts of MTO on several important mental health outcomes as well, including major depression.³³ Around one of five women in the MTO control group had ever experienced major depression over their lifetimes. Moving with either a low-poverty voucher or traditional voucher in MTO reduced the risk of major depression by over one-quarter. These impacts compare favorably with what we see from best-practice medical treatment for depression. The effect on mental health from moving to a lower-poverty neighborhood is not so different from that of taking anti-depressants like Prozac.

What are the net implications of this mixed pattern of results for the low-income families who moved through MTO? The lack of detectable effects on outcomes to which social scientists (and policymakers) often pay great attention, such as earnings or test scores, has led many observers to draw a negative conclusion about the importance of neighborhood environments for families in MTO. And it is indeed true that MTO suggests that changing neighborhoods alone may not be sufficient to improve labor market or schooling outcomes for very disadvantaged families of the sort that enrolled in MTO. But does that mean MTO moves did not make the families better off?

To understand whether MTO moves made families better off as they see it, we asked them. The surveys we carried out for the 10-15 year follow-up included the standard question used in the General Social Survey (GSS) since the 1970s: “Taken all together, how would you say things are these days—would you say that you are very happy, pretty happy, or not too happy?” Previous studies show that different measures of self-reported subjective well-being like this one are correlated in expected ways with objective indicators of well-being such as life events, biological indicators (such as smiling frequency

and brain activity), and reports from other people close to the subject about the person's happiness.

We found that MTO moves generate sizable gains in the subjective well-being or happiness of the heads of household,³⁴ despite the fact that MTO moves did not change their labor market outcomes or the schooling outcomes of their children. The change in subjective well-being that families experience as a result of MTO moves is about the same size as the difference in happiness reported in the national GSS survey by families whose annual incomes differ by about \$18,000. This is a very large difference in happiness given that the average control group family has an income of just \$20,000 per year.

Our analysis also found that the neighborhood characteristic that is most strongly associated with the happiness or self-reported well-being of families is poverty rather than racial segregation. From a public policy perspective this is important because, as noted earlier, over time the level of racial segregation of American neighborhoods has been declining, while in contrast the level of income segregation has been increasing. Our results suggest that the harmful effect of disadvantaged neighborhoods on the well-being of poor families is getting worse, not better.

IMPLICATIONS FOR PUBLIC POLICY

MTO is one of the largest and most ambitious social-policy experiments carried out by the U.S. government in decades. One way to read the MTO demonstration is as an evaluation of a program (voucher-assisted residential mobility) that policymakers might consider carrying out at scale. One thing we have learned from MTO is that this sort of mobility program can have surprisingly large, beneficial impacts on important mental and physical health outcomes. Whether these benefits from MTO are large enough to justify the costs of the mobility program is difficult to determine with the available data. Many housing economists believe the costs to government housing agencies of an MTO-like switch from public housing to housing vouchers is likely to be negative—that is, to save money. But some of the most important potential costs of MTO are unlikely to show up on any government budget spreadsheet. The whole logic behind MTO—that being surrounded by relatively more affluent neighbors could be good for the life outcomes of low-income families—raises the possibility that MTO moves could have adverse effects on other families outside

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of the MTO demonstration who are living in destination areas or the origin neighborhoods that MTO families left.

In principle it could be that mobility programs like MTO are just a zero-sum game, with the benefits to MTO families from living in a lower-poverty area being exactly offset by adverse impacts on other families in destination areas from experiencing an increase in the poverty rate of their neighborhood. If every family responds the same way to living in a neighborhood of a given type, and if the relationship between people's outcomes and neighborhood poverty or other characteristics are linear (so that a 1 percentage point change in tract poverty or some other neighborhood attribute always has the same effect on people's outcomes, regardless of whether we are moving from 50% to 49% poor area or from 16% to 15%) then mobility programs like MTO will change the geographic distribution of social problems, but not their overall rates in society. MTO is great for studying the effects of MTO moves on the movers, but is not well suited to learning anything about these larger society-wide effects.

Even if the health benefits from MTO were sufficient to justify the program's costs, there is still the question of what else we need to do in order to improve those outcome domains that were not affected in MTO, particularly schooling and labor market outcomes. A common reaction to MTO is to conclude that since MTO-like moves did not generate detectably large gains in schooling and labor market outcomes, then more intensive mobility interventions are needed. But it is not obvious that such mobility programs will necessarily have the effects on schooling and labor market outcomes that proponents hope for, or that such policies are feasible at large scale.

One reason I am not sure that more intensive mobility programs will necessarily generate big schooling or labor market gains comes from looking at MTO data across sites and groups using the quasi-experimental dose-response model described in a recent scientific paper by economists Jeffrey Kling, Jeffrey Liebman, and Lawrence Katz.³⁵ This approach shows that MTO participants who experience relatively larger changes in neighborhood poverty or related characteristics have larger improvements in physical or mental health outcomes.³⁶ But we do not see the same "dose-response" relationship for schooling or labor market outcomes, which means that a larger neighborhood "dose" need not lead to larger changes in education or work outcomes. One qualification here is that there is one particular type of move—namely, to affluent, mostly-white suburbs—are not very well represented in

the MTO data. While MTO itself does not have much to say about those sorts of moves, follow-up Gautreaux research using longitudinal administrative records has not found large beneficial effects from moving to the suburbs.³⁷

A different sort of question is whether mobility programs that achieve even more socio-economic or racial integration than did MTO are feasible at large scale. The standard concern has to do with political feasibility, given some of the political opposition that arose to MTO itself.³⁸ I do not claim to have any special insight on this question of political feasibility, although it is perhaps worth noting that the few programs that I know of to have moved poor urban families to affluent suburbs (Gautreaux in Chicago, Thompson in Baltimore) were enacted by judges rather than elected politicians.

Perhaps the findings from MTO are most interesting for what they can tell us about basic questions regarding how neighborhood environments affect people's life chances, rather than as a test of a specific policy intervention that would ever be done on a large scale. For example the basic results of the MTO demonstration could be useful in helping inform the design of other policies, like community-level interventions (not just mobility programs that move individual families), by trying to shed light on the specific neighborhood attributes that might matter most for people's life outcomes. If we had all the money in the world, the first-best way to learn about community-level interventions is to carry out randomized experiments that test community-level interventions. But implementing most community-level programs in enough communities to provide adequate statistical power to detect effects quickly becomes cost-prohibitive. A second-best approach for learning about community-level interventions might be follow-up research using longitudinal administrative records on Chicago's Gautreaux mobility program—which did move families to these sorts of mostly-white, affluent suburbs, but has not found large beneficial effects from moving to the suburbs in the spirit of “mechanism experiments” suggested in a paper that I wrote several years ago with economists Jeffrey Kling and Sendhil Mullainathan.³⁹

While one potential concern is that MTO might have less beneficial impacts on people's lives than would community-level interventions, given the potentially disruptive effects of moving itself, this concern strikes me as less serious than it initially appears once we recognize the high rates of residential mobility that we see in general in the U.S. Typically around 18-22% of Americans change addresses each

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year, about twice the rate we see in other developed countries like Japan or Britain.⁴⁰ Mobility rates are higher still among American renters, around 32.5% per year.⁴¹ If we implemented a community-level program in a sub-set of distressed urban neighborhoods, after a 10-15 year follow-up period a large share of the original residents would have turned over. A large share of the people who currently lived in the new-and-improved neighborhood would have moved in from somewhere else. So over the long term MTO and a community-level intervention might wind up looking not all that different.

Of course there is the question of how results for the MTO sample might generalize to other samples and contexts, which is always an important qualification to keep in mind with any social-science study (whether that is an experiment or an observational study). But for what it's worth the MTO families and their baseline neighborhoods do not look dramatically different from other samples of high-poverty-area residents that have been studied in the “neighborhood effects” literature. Moreover given their high level of vulnerability to a range of adverse life outcomes, low-income families living in our most distressed urban areas—like the families enrolled in the MTO demonstration—have understandably and appropriately received disproportionate attention in public policy conversations.

The MTO findings raise the possibility that very distressed neighborhood environments may be less important for outcomes like children's schooling and adult earnings than hypothesized in William Julius Wilson's landmark book *The Truly Disadvantaged*. But neighborhoods may be extremely important for physical and mental health outcomes, and for the overall level of well-being for poor families.

If the goal of social policy is defined narrowly as that of reducing income poverty, then the growing geographic concentration of poverty in America that we have seen since 1970 might not be at the top of our list of concerns. But if the goal is understood more broadly to be about improving the lives of poor families, then the geographic concentration of poverty is very much worth worrying about.

ABOUT THE AUTHOR



Jens Ludwig is the McCormick Foundation Professor of Social Service Administration, Law and Public Policy at the University of Chicago, Director of the University of Chicago Crime Lab, and Co-Director of the University of Chicago Urban Education Lab. He is an economist by training and in 2012 was elected to the Institute of Medicine of the National Academies of Science. His research focuses on housing, poverty violence, crime, and urban education. In addition to his positions at University of Chicago, Ludwig is a research associate at the National Bureau of Economic Research (NBER); co-director of the NBER's working group on the economics of crime; and nonresidential senior fellow in economic studies at the Brookings Institution.

For the past 15 years, Ludwig has been involved in the study of a large-scale social experiment carried out by the US Department of Housing and Urban Development, Moving to Opportunity, which recently published a report in *Science* on the influence of neighborhood income segregation on circumstances such as physical and mental health.

ENDNOTES

1 This paper draws from material reported in: Ludwig, Jens, Lisa Sanbonmatsu, Lisa Gennetian, Emma Adam, Greg J. Duncan, Lawrence F. Katz, Ronald C. Kessler, Jeffrey R. Kling, Stacy Tessler Lindau, Robert C. Whitaker, and Thomas W. McDade (2011) "Neighborhoods, obesity and diabetes—A randomized social experiment." *New England Journal of Medicine*. 365: 1509-19; Ludwig, Jens (2012) "Guest editor's introduction." *Cityscape*. 14(2): 1-28; Ludwig, Jens, Greg J. Duncan, Lisa A. Gennetian, Lawrence F. Katz, Ronald C. Kessler, Jeffrey R. Kling, and Lisa Sanbonmatsu (2012) "Neighborhood effects on the long-term well-being of low-income adults." *Science*. 337: 1505-1510; Ludwig, Jens, Greg J. Duncan, Lisa A. Gennetian, Lawrence F. Katz, Ronald C. Kessler, Jeffrey R. Kling, and Lisa Sanbonmatsu (2013) "Long-term neighborhood effects on low-income families: Evidence from Moving to Opportunity." *American Economic Review, Papers and Proceedings*. 103(May): 226-231; Gennetian, Lisa, Jens Ludwig, Thomas McDade, and Lisa Sanbonmatsu (2013) "Why concentrated poverty matters." *Pathways: A Magazine on poverty, inequality, and social policy*. (Spring). 9-13; Orr, Larry, Judith D. Feins, Robin Jacob, Erik Beecroft, Lisa Sanbonmatsu, Lawrence F. Katz, Jeffrey B. Liebman, and Jeffrey R. Kling (2003) *Moving to Opportunity interim impacts evaluation*. Washington, DC: U.S. Department of Housing and Urban Development, Office of Policy Development and Research.

2 Kneebone, Elizabeth, Carey Nadeau, and Alan Berube (2012) "The re-emergence of concentrated poverty: Metropolitan trends in the 2000s," *Brookings Institution Metropolitan Policy Program. Metropolitan Opportunity Series*. Washington, DC: Brookings Institution; See also Watson, Tara (2009) "Inequality and the measurement of residential segregation by income in American neighborhoods." *Review of Income and Wealth*. 55(3): 820-844.

3 Sampson, Robert J., Stephen W. Raudenbush and Felton Earls (1997) "Neighborhoods and violent crime: A multilevel study of collective efficacy." *Science*. 277(5328): 918-924.

4 Wilson, William Julius (1987) *The Truly Disadvantaged: The Inner City, the Underclass and Public Policy*. Chicago: University of Chicago Press. P. 49.

5 Hunt, Bradford D. (2009) *Blueprint for Disaster: The Unraveling of Chicago Public Housing*. Chicago: University of Chicago Press.

6 Olsen, Edgar O. (2003) "Housing programs for low-income households." In *Means-Tested Transfer Programs in the United States*, Edited by Robert Moffitt. Chicago: University of Chicago Press.

7 Kirp, David L., John P. Dwyer, and Larry A. Rosenthal (1997) *Our Town: Race, Housing, and the Soul of Suburbia*. New Brunswick, NJ: Rutgers University Press.

8 I served as the project director for the National Bureau of Economic Research (NBER) long-term follow-up study of families in *Moving to Opportunity*, carried out under contract with HUD. The other members of the research team assembled for this project included principal investigator Lawrence Katz of Harvard University and the NBER, and other research team members Emma Adam, Northwestern University; Greg Duncan, University of California at Irvine; Lisa Gennetian, New York University, Ronald Kessler, Harvard Medical School; Jeffrey Kling, Congressional Budget Office and NBER; Stacy Lindau, University of Chicago; Thomas McDade, Northwestern University; Lisa Sanbonmatsu, NBER; and Robert Whitaker, Temple University. All opinions expressed here mine alone and do not reflect the views of HUD, the NBER or the Congressional Budget Office.

9 Glaeser, Edward and Jacob Vigdor (2012) *The end of the segregated century: Racial separation in America's neighborhoods, 1890-2010*. New York: Manhattan Institute for Policy Research Civic Report Number 66.

10 Watson, Tara (2009).

11 Kneebone, Elizabeth, Carey Nadeau, and Alan Berube (2012).

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

13 Keels, Micere, Greg J. Duncan, Stefanie DeLuca, Ruby Mendenhall, and James E. Rosenbaum (2005) "Fifteen years later: Can residential mobility programs provide a permanent escape from neighborhood crime and poverty?" *Demography*. 42(1): 51-73.

14 Rosenbaum, James E. (1995) "Changing the geography of opportunity by expanding residential choice: Lessons from the Gautreaux program." *Housing Policy Debate*. 6(1): 231-269; See also Rubinowitz, Leonard S. and James E. Rosenbaum (2000).

15 Mendenhall, Ruby, Greg J. Duncan and Stefanie Deluca (2006) "Neighborhood resources, racial segregation and economic mobility: Results from the Gautreaux Program." *Social Science Research*. 35(4): 892-923; See also Votruba, Mark E. and Jeffrey R. Kling (2009) "Effects of neighborhood characteristics on the mortality of black male youth: Evidence from Gautreaux." *Social Science and Medicine*. 68(5): 814-23; See also DeLuca, Stefanie, Greg J. Duncan, Micere Keels, and Ruby M. Mendenhall (2010).

16 Notes: * = $P < .05$, ~ = $P < .10$ on a pair wise probability-weighted t-test of the difference between the low-poverty voucher or traditional voucher group and the control group. All values represent shares. Shares are calculated using sample weights to account for changes in random assignment ratios across randomization cohorts and for subsample interviewing.

Data source and sample: Baseline survey. All sample adults interviewed for the final evaluation.

Measures: The baseline head of household reported on the neighborhood characteristics listed here.

17 Housing vouchers provide families with a subsidy for their private-market rent, equal to the difference between the local-area Fair Market Rent (set to equal between the 40th and 50th percentile of the local metropolitan area's rent distribution, depending on the city and year in question) and 30% of the family's adjusted income (see Olsen, 2003 and Jacob and Ludwig, 2012 for details). The family's required rent contribution is the same for public housing and housing vouchers and so receipt of a voucher does not free-up any extra disposable income to families by enabling them to change their own out-of-pocket spending on rent; Jacob, Brian A. and Jens Ludwig (2012) "The effects of housing assistance on labor supply: Evidence from a voucher lottery." *American Economic Review*. 102(1): 272-304.

18 The interim and long-term HUD technical reports summarizing the MTO results (Orr et al., 2003, and Sanbonmatsu et al., 2011) describe the three groups as experimental, Section 8, and controls. In some of our research team's other writings (for example, Ludwig et al., 2011) we use instead the more descriptive terms "low-poverty voucher group," "traditional voucher group," and controls.

19 Rubinowitz, Leonard S. and James E. Rosenbaum (2000); See also Olsen, Edgar O. (2003).

20 For example, one potential way to improve voucher take-up rates is to provide families with a longer window of time to search for units. But this creates the risk of reducing the share of vouchers that

are being used by low-income families at any given point in time. Alternatively we could spend more money on housing-mobility counseling assistance for voucher recipients, or efforts to encourage landlords to accept housing vouchers. But even if these efforts were successful in increasing voucher lease-up rates, spending more on these types of activities necessarily comes at the cost of diverting money that could have gone to providing actual housing subsidies to the two-thirds of income-eligible households in America who are not enrolled in means-tested housing programs (Olsen, 2003).

21 For additional discussion, see Ludwig, Jens, Jeffrey B. Liebman, Jeffrey R. Kling, Greg J. Duncan, Lawrence F. Katz, Ronald C. Kessler, and Lisa Sanbonmatsu (2008) "What can we learn about neighborhood effects from the Moving to Opportunity experiment?" *American Journal of Sociology*. 114(1): 144-88.

22 We do not try to estimate the effects of moving with a MTO voucher by doing something non-experimental such as comparing just the low-poverty-voucher group movers with the controls, because the families in the low-poverty-voucher group who move with a voucher are a self-selected subset of families assigned into that group—and so this self-selected subset cannot be compared with all the families assigned to the control group, because this would be an apples-to-oranges comparison. Instead, we estimate the TOT in a way that exploits the experimental design of MTO, as follows. If we are willing to assume that being assigned to the low-poverty voucher (or traditional voucher) group does not have much effect on families who do not use a MTO voucher to move, then the TOT effect will equal the ITT effect divided by the share of families assigned to the low-poverty voucher (or traditional voucher) group who use a MTO voucher to relocate (H. Bloom, 1984). Since no control group families can use a MTO voucher by construction, the TOT estimate for some outcome of interest is basically the ratio of two ITT effects that are fully experimental—the ITT effect on the outcome divided by the ITT effect on use of a MTO voucher; Bloom, Howard S. (1984) "Accounting for no-shows in experimental evaluation designs." *Evaluation Review*. 8(April): 225-246.

23 Katz, Bruce (2009) "The origins of HOPE VI." In *From Despair to Hope: HOPE VI and the New Promise of Public Housing in America's Cities*, Edited by Henry G. Cisneros and Lora Engdahl. Washington, DC: Brookings Institution Press. pp. 15-30.

24 Model: The graphs show for controls and voucher movers the average share or rate of neighborhood share poverty (panel A), neighborhood share minority (panel B), violent crime rate (panel C), has college educated friend (panel D), saw drugs used or sold (panel E), and average school percentile ranking (panel F). The control bar represents the control complier mean, or the estimated average for control group adults who would have complied with treatment if they had been offered a voucher (e.g., the same types of individuals in the control group as the movers in the treatment group). The voucher movers bar represents the average of the characteristic for adults in the treatment group who moved using a program voucher. The percentages listed above the voucher movers bars are the relative percent difference between the controls' and the voucher movers' means, e.g. neighborhood share poverty for traditional voucher movers is 28% lower $(.285-.396)/.396$ relative to the rate for their control counterparts. The first set of bars in each panel shows the comparison for the traditional voucher group and the second set of bars for the low-poverty voucher group. We calculated the control complier mean as the mean of those in the traditional or low-poverty voucher group who moved using a program voucher less the treatment-on-the-treated for that group. We calculate the treatment-on-the-treated (TOT) by scaling up the intent-to-treat (ITT) estimate using the Bloom (1984) method. The ITT was calculated using a weighted ordinary least squares (OLS) regression model predicting the neighborhood or social characteristic on dummies for treatment status and controlling for baseline covariates and field release.

Data Source and Sample: Self-reported measures come from the adult long-term survey. Census tract characteristics come from interpolated data from the 1990 and 2000 decennial censuses as well as the 2005-2009 American Community Survey. School ranking comes from the National Longitudinal School-Level State Assessment Score Database and is based on school histories that combine long-term survey self-reports from youth (ages 10 to 20 as of December 31, 2007) and interim survey parent reports. The sample for panels A through E is all adults interviewed as part of the long-term survey. The sample for panel F is all youth interviewed as part of the long-term survey.

Measures: Neighborhood share poor is the fraction of census tract residents living below the poverty threshold. Neighborhood share minority is the fraction of persons of a racial or ethnic minority group. Local area violent crime rate is the violent crime rate per 100,000 people. Share who have college educated friend is whether the respondent reports having at least one friend who graduated from college. Share who have seen drugs sold or used is whether respondent reports having seen drugs used or sold in their neighborhood in the past 30 days. Share poor, share minority, and violent crime are average measures weighted by the amount of time respondents lived at each of their addresses between random assignment and May 31, 2008 (just prior to the start of the long-term survey fielding period). School percentile ranking is the average school rank on statewide standardized tests and is weighted by the amount of time youth spent at each school.

25 Data from the Census Bureau's American Community Survey for 2006-10 show the poverty rates for the five MTO cities equal 21.3% for Baltimore, 21.2% for Boston, 20.9% for Chicago, 19.5% for Los Angeles, and 19.1% for Los Angeles. See www.census.gov.

26 A common measure of residential segregation is the "dissimilarity index," which is defined as the share of people who would need to be moved across census tracts within a given area in order to have the share of poor people in each tract equal the share of the larger area that is poor. The five MTO demonstration cities have poverty rates right now in the ballpark of 20%. The average tract poverty rate of MTO low-poverty voucher movers (about 21%) corresponds basically to the benchmark of perfect poverty integration in these MTO cities. Even if we implemented a residential-mobility program that would move inner-city families all over the country, the poverty rate in the U.S. as a whole right now is 15% (<http://www.nytimes.com/2011/09/14/us/14census.html?pagewanted=all>). There is just not that much room to achieve more economic integration at large scale when the overall poverty rate is on the order of 15 to 20%. It is always possible to have some poor families live in tracts with poverty rates below 15%. But since 15% of the population is poor, that would require some other poor families to then live in tracts with poverty rates above 15%. The key point is that if 15% of all Americans are poor, it is simply not possible to have each and every poor family live in a tract in which less than 15% of all tract residents are poor.

27 Jargowsky, Paul A. (1997) *Poverty and Place: Ghettos, Barrios and the American City*. New York: Russell Sage Foundation; See also Jargowsky, Paul A. (2003) *Stunning Progress, Hidden Problems*. Washington, DC: Brookings Institution.

28 Sampson, Robert J., Jeffrey D. Morenoff and Thomas Gannon-Rowley (2002) "Assessing 'neighborhood effects': Social processes and new directions in research." *Annual Review of Sociology*. 28: 443-78; See also Sampson, Robert J. (2012) *Great American City: Chicago and the Enduring Neighborhood Effect*. Chicago: University of Chicago Press.

29 Data source and sample: These analyses use individual data from Unemployment Insurance records from Maryland, Illinois, California, and Florida for respondents whose random assignment sites are Baltimore, Chicago, and Los Angeles. They also incorporate aggregated Unemployment Insurance data from Massachusetts and New York, which represent individuals whose random assignment sites are Boston and New York City. All sample adults with baseline consent (N=4194).

30 Ludwig, Jens, Lisa Sanbonmatsu, Lisa Gennetian, Emma Adam, Greg J. Duncan, Lawrence F. Katz, Ronald C. Kessler, Jeffrey R. Kling, Stacy Tessler Lindau, Robert C. Whitaker, and Thomas W. McDade. (2011) "Neighborhoods, obesity and diabetes: A randomized social experiment." *New England Journal of Medicine*. 365(16): 1509-19.

31 Our *New England Journal of Medicine* paper reports the effects of being offered the chance to move through MTO, known as the "intention to treat" effect. Because around half the families offered a low-poverty voucher moved with the voucher, the effect of treatment on the treated (which we report above) is about twice as large as the intention to treat effect.

32 Model: The graphs show for controls and voucher movers the average share or rate of extreme obesity (panel A), diabetes (panel B), self-reported good or better health (panel C), and depression (panel D). The control bar represents the control complier mean, or the estimated average for control group adults who would have complied with treatment if they had been offered a voucher (e.g., the same types of individuals in the control group as the movers in the treatment group). The voucher movers bar represents the average of the characteristic for adults in the treatment group who moved using a program

voucher. The percentages listed above the voucher movers bars are the relative percent difference between the controls' and the voucher movers' means, e.g. diabetes for traditional voucher movers is 8% lower $(.206-.223)/.223$ relative to the rate for their control counterparts. The first set of bars in each panel shows the comparison for the traditional voucher group and the second set of bars for the low-poverty voucher group. We calculated the control complier mean as the mean of those in the traditional or low-poverty voucher group who moved using a program voucher less the treatment-on-the-treated for that group. We calculate the treatment-on-the-treated (TOT) by scaling up the intent-to-treat (ITT) estimate using the Bloom (1984) method. The ITT was calculated using a weighted ordinary least squares (OLS) regression model predicting the neighborhood or social characteristic on dummies for treatment status and controlling for baseline covariates and field release.

Data Source and Sample: Self-reported measures come from the adult long-term survey. Body-Mass Index (BMI), defined as weight in kilograms divided by height in meters squared, was calculated from height and weight measured during the interview, or in a small number of cases, self-reported. Diabetes measures are from dried blood spot assays collected during the interview. The sample is all adults interviewed as part of the long-term survey.

Measures: Extreme obesity is BMI greater than or equal to 40. Diabetes is indicated by a glycosylated hemoglobin (HbA1c) level greater than or equal to 6.5% on a blood spot assay. Good or better self-reported health is whether the respondent rated their health as "good" or "excellent" rather than "fair" or "poor". Depression is diagnosed if the respondent has ever experienced a major depressive episode, defined as a two-week or longer period where at least one symptom is depressed mood or loss of interest or pleasure and where the respondent had at least five of the following nine symptoms: depressed mood, markedly diminished interest or pleasure, significant weight loss or gain (unrelated to dieting), insomnia, psychomotor agitation (for example, physical restlessness, pacing) or retardation (for example, being physically slowed down), fatigue or loss of energy, feelings of worthlessness or excessive or inappropriate guilt, diminished ability to think or concentrate or indecisiveness, and recurrent thoughts of death. In addition, the symptoms must cause clinically significant distress or impair social, occupational, or other functioning.

33 Sanbonmatsu, Lisa, Jens Ludwig, Lawrence F. Katz, Lisa A. Gennetian, Greg J. Duncan, Ronald C. Kessler, Emma Adam, Thomas W. McDade, and Stacy Tessler Lindau. 2011. *Moving to Opportunity for Fair Housing Demonstration Program: Final Impacts Evaluation*. Washington, DC: U.S. Department of Housing and Urban Development, Office of Policy Development and Research.

34 Ludwig, Jens, Greg J. Duncan, Lisa A. Gennetian, Lawrence F. Katz, Ronald C. Kessler, Jeffrey R. Kling, and Lisa Sanbonmatsu (2012)

35 Kling, Jeffrey R., Jeffrey B. Liebman, and Lawrence F. Katz (2007) "Experimental analysis of neighborhood effects." *Econometrica*. 25: 83-119.

36 Kling, Jeffrey R., Jeffrey B. Liebman, and Lawrence F. Katz (2007); See also Ludwig, Jens, Lisa Sanbonmatsu, Lisa Gennetian, Emma Adam, Greg J. Duncan, Lawrence F. Katz, Ronald C. Kessler, Jeffrey R. Kling, Stacy Tessler Lindau, Robert C. Whitaker, and Thomas W. McDade (2011).

37 DeLuca, Stefanie, Greg J. Duncan, Micere Keels, and Ruby M. Mendenhall (2010)

38 Goering, John (2003) "Political origins and opposition." In *Choosing a Better Life? Evaluating the Moving to Opportunity Experiment*. Edited by John Goering and Judith D. Feins. Washington, DC: Urban Institute Press. pp. 37-58.

39 Ludwig, Jens, Jeffrey R. Kling, and Sendhil Mullainathan (2011) "Mechanism experiments and policy evaluations." *Journal of Economic Perspectives*. 25(3): 17-38.

40 Long, Larry (1992) "International perspectives on the residential mobility of America's children." *Journal of Marriage and the Family*. 54(4): 861-869.

41 Crowley, Sheila (2003) "The affordable housing crisis: Residential mobility of poor families and school mobility of poor children." *Journal of Negro Education*. 72(1): 22-38.