Moving to Opportunity Redux:
An Assessment of Section 8 Voucher Holder Locations and Neighborhood Opportunity in Charlotte, North Carolina

by

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# Table of Contents

INTRODUCTION .......................................................................................................................... 2

BACKGROUND ......................................................................................................................... 4

  History of the Section 8 Housing Choice Voucher Program .............................................. 4
  Assessing Mobility and Neighborhood Outcomes for Section 8 Voucher Holders .......... 5
  Barriers to Voucher Household Mobility ............................................................................ 6
  Special Mobility Programs and Neighborhood Effects on Voucher Holders ................. 8
  Improving Housing Mobility Programs through Comprehensive Opportunity Mapping ... 11

RESEARCH QUESTION ............................................................................................................ 12

RESEARCH METHODOLOGY ............................................................................................... 13

FINDINGS .................................................................................................................................. 15

DISCUSSION ............................................................................................................................. 22

  Recruit and Retain More Landlords in High-Opportunity Neighborhoods ................... 23
  Increase the Supply of Affordable Housing in High-Opportunity Neighborhoods .......... 24
  Provide Larger Rent Subsidies in High-Opportunity Neighborhoods .............................. 24

CONCLUSION ............................................................................................................................ 25

REFERENCES .......................................................................................................................... 28

APPENDIX A .............................................................................................................................. 32
America’s housing challenges cannot be described with statistics alone; they must be understood as a quality-of-life issue as well. Fundamental to the American Dream is somewhere to call home—a safe and welcoming “anchor place” where families are raised and memories are formed. Furthermore, housing must be viewed in the context of the community in which it is located. Improvements in housing need to be linked to improvements in schools, community safety, transportation, and job access.


INTRODUCTION

With the country continuing to struggle through the worst economic crisis since the Great Depression, the number of Americans living below the poverty line in 2010 was the highest it has been in 52 years (DeNavas-Walt, Bernadette, & Smith, 2011). According to the U.S. Census Bureau, 46.2 million people found themselves living in poverty in 2010, putting the official poverty rate at 15.1 percent (DeNavas-Walt, Bernadette, & Smith, 2011). While every community has been impacted by the recent economic downturn, the distribution of people living in poverty has not been even. The first decade of the 2000s has been marked by a re-emergence of concentrated poverty in both central city and suburban areas across the country. In a reversal of the decline in concentrated poverty observed during the 1990s, the population living in extreme poverty neighborhoods—where at least 40 percent of individuals live below the poverty line—increased by one-third between 2000 and 2005-2009 (Kneebone, Nadeau, & Berube, 2011). By 2010, 3.5 percent of the total population and 12.4 percent of poor individuals (approximately 5.1 million poor people) lived in extreme poverty neighborhoods (Bishaw, 2011).

The resurgence of concentrated poverty presents serious challenges for low-income families seeking to find employment, earn an adequate standard of living, and raise their children. Over the past four decades, an extensive and growing body of multidisciplinary research has emerged which indicates that living in these high-poverty communities undermines the long-term life chances of both adults and children (Ellen & Turner, 1997). The mechanisms by which neighborhood characteristics affect individual outcomes are many. However, in general terms, lack of proximity to job opportunities, inadequate public services, underperforming schools, and high rates of violence and crime all intersect to limit residents’ academic, social, and economic success (Ellen & Turner, 1997). Housing is therefore a critical intervention point for planners and policymakers seeking to provide greater access to economic and educational opportunities for families struggling to move out of poverty.

Over the past two decades, federal housing policy has increasingly focused on improving the locational outcomes of families receiving federal housing assistance. The nation’s largest rental housing assistance program for low-income families—the Section 8 Housing Choice Voucher (HCV) Program—is specifically designed to foster spatial mobility among voucher recipients (HUD, 2000). In recent years, the U.S. Department of Housing and Urban Development has placed greater emphasis on the goal of geographic mobility by making the expansion of “housing choice outside areas of poverty or minority concentration” one of the criteria by which it evaluates local Section 8 HCV programs (Section 8 Management Assessment Program, 2011). Moreover, HUD offers “bonus points” to local housing authorities for increasing the share of program participants living in low-poverty areas (Section 8 Management Assessment Program, 2011).
Although the HCV program provides voucher recipients with wider geographic latitude in their search for housing, program participants are not required to locate in low-poverty areas. Yet even without such a requirement, Section 8 voucher holders are less likely to live in economically distressed neighborhoods than are residents of public housing or project-based Section 8 housing (Devine, Gray, Rubin, & Taghavi, 2003). Despite this comparative success, many researchers, policy makers, and housing advocates believe that the tenant-based Section 8 voucher program could do more to promote housing mobility and poverty deconcentration, particularly for minority families with children (Turner, Popkin, & Cunningham, 2000; McClure, 2008). In the mid-1990s, HUD’s Moving to Opportunity (MTO) Demonstration Program experimented with requiring Section 8 households to use their vouchers in areas with poverty rates of 10 percent or less (Goering, Feins, & Richardson, 2003). However, the experiment was confined to just 4,600 participants in five metropolitan areas and lasted only four years (from 1994 until 1998) (Goering et al., 2003). Nonetheless, research on the MTO program consistently shows that voucher holders who were required to move to low-poverty areas exhibited better mental and physical health outcomes than program participations that either remained in public housing or were allowed to use their voucher anywhere (Sanbonmatsu et al., 2011), while other studies further suggest that moving to low-poverty areas led to increased employment and earnings (Clampet-Lundquist & Massey, 2008).

While the likelihood that the MTO program will be revived and expanded to serve the entire Section 8 voucher population is miniscule, findings on neighborhood effects from studies of the MTO program demonstrate the importance of helping voucher recipients attain a better living environment. As encouraged by current Section 8 Management Assessment Program evaluation criteria, local housing authorities should administer their HCV programs in a manner that fosters greater neighborhood choice while encouraging voucher holders to move to higher quality neighborhoods. To that end, public housing officials should not rely on poverty rates as the singular metric by which they define neighborhood quality in structuring local housing mobility efforts. Several prominent housing experts, including the principal architect of the MTO program, recommend that neighborhood employment, educational attainment and school performance, crime, and housing tenure characteristics should be among the variables used to identify neighborhoods suitable for relocation by HCV families (Goering, 2005; Feins & Patterson, 2005; McClure, 2011).

Opportunity mapping is a tool that can be used to integrate these various metrics into a comprehensive assessment of neighborhood quality. The fundamental purpose of opportunity mapping is to ascertain where high-opportunity neighborhoods are located while also identifying opportunity-deprived areas in need of targeted reinvestment. Through the use of Geographic Information Systems (GIS) software, an opportunity map is created by gathering data on community conditions that reflect different components of neighborhood quality, including access to employment and educational opportunities, transportation access, property values, crime rates, and proximity to open space, or, alternatively, noxious land uses. These individual indicators are then aggregated at the neighborhood level to create a comprehensive view of neighborhood quality and opportunity.

In recent years, opportunity mapping has increasingly been used to assess how access to social, economic, and educational opportunity differs across various racial and economic groups. In the
context of the Section 8 HCV program, opportunity mapping offers a highly useful planning and decision-making tool for voucher-holders, local public housing officials, and housing advocacy groups. Using Charlotte, North Carolina and surrounding Mecklenburg County as a case study, this paper is intended to demonstrate the utility of opportunity mapping for assessing the locational outcomes and corresponding neighborhood quality of HCV households at the local level.

BACKGROUND

History of the Section 8 Housing Choice Voucher Program

Beginning in the mid-1970s, the focus of federal housing policy shifted from project-based housing assistance to tenant-based assistance. With the passage of the Housing and Community Development Act of 1974, Congress created the first national voucher program, originally known as the Section 8 Existing Housing program (Schwartz, 2010). The program worked by providing rental certificates to households with incomes up to 80 percent of the area median. Certificate holders were allowed to find and rent any unit within the jurisdiction of the certificate-issuing housing authority that met physical quality standards and rented at or below the HUD-established fair market rent (FMR) for that region.¹ In their original form, the certificates covered the difference between 25 percent of adjusted family income and the regional FMR. The certificate coverage standard was later raised to require families to pay 30 percent of their adjusted family income for rent, with the Section 8 certificate covering the rest. Additionally, since 1998, local housing authorities have been required to issue 75 percent of all vouchers each year to extremely low-income households earning less than 30 percent of the area’s median family income.

While the Section 8 program was principally designed to provide a lower-cost, private-market alternative to public housing, tenant-based housing assistance was also seen as a solution to the growing problem of concentrated minority poverty in central cities (Varady & Walker, 2007). As the program grew, so too did the emphasis on promoting greater mobility and dispersal among voucher recipients. Spurred in part by the research on the adverse effects of concentrated poverty by sociologists such as William Julius Wilson (1987), Congress amended the Section 8 program in 1987 to allow certificate holders to use their subsidies throughout the metropolitan area in which the subsidy was issued or in an adjacent metropolitan area (Goetz, 2003). Three years later, Congress expanded this portability provision to allow statewide mobility by certificate holders. Most recently, the Quality Housing and Work Responsibility Act of 1998, which created the modern Section 8 HCV program, permitted voucher holders to take their vouchers anywhere in the United States (Schwartz, 2010). With each successive expansion of the portability provisions of the Section 8 program, the motivating theory was the same—facilitating moves by poor households to nonpoor areas will provide such households with better access to public services, jobs, and higher quality education, reduce their exposure to crime and violence, and

¹ As Schwartz (2010) explains, “FMRs are calculated annually for more than 2,600 housing markets. They were first defined as the median rent charged for recently leased apartments, adjusted for apartment size. The definition was changed in 1984 to the 45th percentile and in 1995 to the 40th percentile. However, in 2001, the government raised the FMR back to the 50th percentile in 39 of the most expensive housing markets” (p.178).
increase their overall residential satisfaction (Briggs, 1997). The HCV program is today the largest rental assistance program in the country. Over 2 million households received vouchers in 2010 (Center on Budget and Policy Priorities, 2011).

Assessing Mobility and Neighborhood Outcomes for Section 8 Voucher Holders

Although some scholars have concluded that the “neighborhood outcomes of the HCV Program are unimpressive,” research on the neighborhood characteristics of HCV households generally supports the argument that vouchers enable people to access a wider range of neighborhoods while moving to safer, less troubled communities. In their study of the 50 largest metropolitan areas in the U.S., Devine et al. (2003) found that voucher holders resided in approximately 84 percent of all census tracts with affordable rental units. Residents of public housing, by contrast, were found in only eight percent of the tracts with affordable housing. However, the study also shows that voucher holders are not evenly distributed and are unable to access all available affordable housing across metropolitan areas. In nearly one third of all census tracts the relative share of voucher holders was greater than 100 percent, meaning the number of voucher holders in the tract as a percentage of all affordable units was larger than the corresponding percentage for the surrounding central city or suburb. At the other end of the spectrum, approximately 17 percent of census tracts had no voucher holders at all (i.e., a relative share of 0 percent) and an additional 18 percent of tracts have relative shares of less than 25 percent. A comparison between suburban and urban areas shows that central city tracts are more likely to have a disproportionately high percentage of voucher holders.

Devine et al. (2003) also found that voucher holders are more likely than public housing residents to live in low-poverty areas. Whereas only seven percent of all families in public housing lived in census tracts with poverty rates of 10 percent or less, close to 30 percent of all HCV families lived in these low-poverty tracts. Still, a significant share of voucher holders live in high-poverty neighborhoods. As of 2000, 17 percent of all HCV households resided in census tracts with poverty rates above 30 percent, while 10 percent were found in neighborhoods with poverty rates of 40 percent or more. These figures are summarized in Table 1. Although more recent data is unavailable, the re-emergence of concentrated poverty that has accompanied the current economic downturn (Kneebone et al., 2011) is likely to have increased the share of voucher families living in high-poverty neighborhoods.

Table 1. Distribution of Renters by Census Tract Poverty Level

<table>
<thead>
<tr>
<th>Neighborhood Poverty Concentration</th>
<th>Non-Subsidized</th>
<th>Tenant-Based HCV</th>
<th>Project-Based Section 8</th>
<th>Public Housing</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 10 Percent</td>
<td>41.3</td>
<td>28.4</td>
<td>18.2</td>
<td>7.0</td>
</tr>
<tr>
<td>10 to 20 Percent</td>
<td>27.9</td>
<td>30.2</td>
<td>22.1</td>
<td>15.4</td>
</tr>
<tr>
<td>20 to 30 Percent</td>
<td>14.3</td>
<td>19.2</td>
<td>15.2</td>
<td>11.5</td>
</tr>
<tr>
<td>30 to 40 Percent</td>
<td>8.8</td>
<td>12.7</td>
<td>17.3</td>
<td>17.5</td>
</tr>
<tr>
<td>40 Percent or More</td>
<td>7.7</td>
<td>9.5</td>
<td>27.1</td>
<td>48.6</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Devine et al. (2003), Table III-8.

2 Devine et al.’s (2003) figures for federally subsidized renters (tenant-based HCV, project-based Section 8, and public housing) account only for those households with children present.
While voucher households fare better in terms of neighborhood poverty rates than do public housing residents, research shows significant racial differences in the neighborhood characteristics of HCV families. In 2000, over a quarter of black and Hispanic HCV households lived in census tracts with poverty rates above 30 percent, compared to just eight percent of white HCV households (Table 2). Black HCV participants were also more likely than white HCV participants to be found in neighborhoods where voucher holders were overrepresented as compared with the surrounding jurisdiction (i.e., the relative share of voucher holders is above 100 percent). Conversely, white voucher households were twice as likely as black and Hispanic voucher households to live in low-poverty neighborhoods (areas with poverty rates of 10 percent or less).

### Table 2. Distribution of Voucher Households by Race by Census Tract Poverty Levels

<table>
<thead>
<tr>
<th>Neighborhood Poverty Concentration</th>
<th>Black (Not Hispanic) Households</th>
<th>Hispanic Households</th>
<th>White (Not Hispanic) Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 10 Percent</td>
<td>24.3</td>
<td>21.2</td>
<td>48.8</td>
</tr>
<tr>
<td>10 to 20 Percent</td>
<td>29.4</td>
<td>29.9</td>
<td>32.0</td>
</tr>
<tr>
<td>20 to 30 Percent</td>
<td>21.2</td>
<td>21.0</td>
<td>11.2</td>
</tr>
<tr>
<td>30 to 40 Percent</td>
<td>14.6</td>
<td>15.3</td>
<td>4.5</td>
</tr>
<tr>
<td>40 Percent or More</td>
<td>10.6</td>
<td>12.6</td>
<td>3.5</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Devine et al. (2003), Table III-3.

In contrast to the general trend, research indicates that black voucher households experience better outcomes than white households in at least one respect. Feins and Patterson (2005) find that black households were more likely than white households to move after entry into the HCV program and generally experienced larger improvements in neighborhood quality after such moves. However, Galvez (2010) cautions that the greater mobility-related improvements in neighborhood quality experienced by black households may reflect the fact that white households are more likely to live in lower poverty suburban areas before program entry. Any move by such suburban households after entry into the HCV program will be less likely to result in significant improvements in neighborhood characteristics as compared with a move by a family living in an impoverished central city neighborhood.

**Barriers to Voucher Household Mobility**

Despite the proven advantages of tenant-based rental assistance over project-based subsidy programs, voucher holders continue to face difficulty accessing higher quality neighborhoods for a number of reasons. As McClure (2010) explains, the success of the HCV program in promoting residential mobility is ultimately dependent upon the distribution of existing affordable rental dwellings. The program can only function properly where an adequate supply of rental units are offered in the market at rents below the FMR limitations of the program. Where such units are concentrated in high-poverty neighborhoods, the success of the HCV program will be limited. This association was demonstrated by Pendall (2000), who found in a multi-city analysis that the

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3 Neighborhood quality was measured as combination of poverty rate and the owner-occupied share of census tract housing.
more affordable rental units are concentrated in “distressed” census tracts, the more voucher holders will live in these low-quality neighborhoods.

Voucher holders own desires to remain close to family and friends may also limit the effectiveness of the HCV program in improving the neighborhood outcomes of Section 8 households. As Schwartz (2010) explains, Section 8 tenants may be wary to move away from neighborhoods they know best, where they have an established social network and have access to various types of public services. This reluctance among voucher recipients to rupture familial and social networks was empirically confirmed in a recent assessment of the MTO mobility program. Clampet-Lundquist and Massey (2008) found that participants in the MTO experiment who had family and friends in their baseline neighborhood prior to program entry had a lower likelihood than those that did not of living in a non-poor, integrated neighborhood four years later.

The residential mobility of voucher holders is also limited by landlords’ (un)willingness to lease to HCV participants. Federal law does not require property owners to accept Section 8 vouchers. Moreover, while landlords were once bound by the federal “take one, take all rule,” which prohibited them from denying apartments to Section 8 households if they had ever rented to a voucher holder before, this requirement was repealed in 1998 (Schwartz, 2010). Thus, in the absence of state or local laws that prohibit discrimination against voucher holders based on their participation in the HCV program, landlords have wide latitude in deciding whether to lease apartments to voucher holders. As Pendall (2000) suggests, unless landlords are struggling to find tenants, they have little incentive to participate in the program. While large-scale studies have not been done, several city-level assessments of voucher discrimination indicate that the problem is pervasive. For example, in post-Katrina New Orleans, 82 percent of landlords who were contacted about renting apartments to Section 8 households either refused to accept vouchers or created additional requirements for voucher holders, such as higher security deposits or higher rent (GNOFHAC, 2009). Similarly, a 2007 study in New York City revealed that only nine percent of 415 landlords contacted would accept vouchers (New York ACORN, 2007). Thirteen states and 37 counties and municipalities have adopted laws that prohibit landlords from discriminating against voucher holders based on their source of income as of March 2011 (PRRAC, 2011). However, research on the impact of such laws on the locational outcomes of Section 8 households indicates they have produced only modest improvements in the neighborhood quality of voucher holders (Freeman, 2011).

4 The states that have source-of-income statutes include: California, Connecticut, the District of Columbia, Maine, Massachusetts, Minnesota, New Jersey, North Dakota, Oklahoma, Oregon, Utah, Vermont, and Wisconsin. Cities and counties with source-of-income laws include: California – Corte Madera, East Palo Alto, Los Angeles, and San Francisco; Illinois – Chicago, Cook County, Harwood Heights, Naperville, Urbana, and Wheeling; Iowa – Iowa City; Maryland – Frederick, Howard County, Montgomery County, and Prince George’s County; Michigan – Ann Arbor, Hamburg, and Grand Rapids; Missouri – Saint Louis; New York – Buffalo, Hamburg, Nassau County, New York City, and West Seneca; Ohio – Wickliffe; Pennsylvania – Borough of State College and Philadelphia; Tennessee – Memphis; Washington – Bellevue; King County; and Seattle; and Wisconsin – Cambridge; Dane County; Madison; Ripon; Sun Prairie; and Wauwatosa.
For minority voucher holders, the effects of income-based discrimination are compounded by racial discrimination and residential segregation, which pose additional barriers to accessing higher quality neighborhoods and likely explain a significant portion of the racial disparities in neighborhood outcomes among voucher households described above. Although the effect of discrimination on the residential mobility of minority voucher holders is difficult to quantify, black and Hispanic households routinely face discrimination in rental housing markets (Turner, Ross, Galster, & Yinger, 2002). Such discrimination contributes to residential segregation both by directly limiting housing choice and by influencing the search for housing by minority families. Notably, research on the housing preferences of black families indicates that while black families would prefer to live in an integrated neighborhood rather than an all-black one, they also prefer an all-black neighborhood to a mostly white one (Farley, Fielding, & Krysan, 1997; Charles, 2005). Areas that are overwhelmingly white are often perceived as hostile and unwelcoming (Charles, 2005) and surveys of Section 8 participants indicate that the experience or fear of encountering discrimination limited the housing search for many minority voucher holders (Turner, Popkin, & Cunningham, 2000).

Special Mobility Programs and Neighborhood Effects on Voucher Holders

While evaluations of the success of the conventional HCV program in moving voucher households from high- to low-poverty neighborhoods are mixed, reviews of the nation’s two most prominent special mobility programs have been more consistently positive. While HUD’s MTO demonstration program has been the country’s largest poverty deconcentration program to date, it was inspired in large measure by Chicago’s landmark Gautreaux program, which was established in response to litigation against both HUD and the Chicago Housing Authority (CHA) for past discrimination and segregation in public and other subsidized housing programs (Polikoff, 2006). In 1976, the U.S. Supreme Court issued a consent decree requiring the CHA to give Section 8 vouchers and individual mobility counseling to low-income black families residing in Chicago’s segregated public housing or on the CHA’s public housing waiting list. Participating households, often referred to as “Gautreaux families,” were selected by lottery and were required to use their vouchers in predominantly white or racially mixed neighborhoods throughout the metropolitan area. While families generally could not relocate to areas with a minority population of 30 percent or greater, a provision in the Supreme Court’s consent decree allowed Gautreaux participants to move to predominantly black census tracts if these neighborhoods were determined to be in “revitalizing communities” (Keels, Duncan, DeLuca, Mendenhall, & Rosenbaum, 2005). Approximately three-quarters of all Gautreaux families were relocated to predominantly white neighborhoods in the suburbs, while about one-quarter moved to integrated city neighborhoods (Polikoff, 2006). On average, the city movers ended up in neighborhoods that were 47 percent black and 27 percent poor, while the suburban movers ended up in areas that were only 6.5 percent black and 5 percent poor (Keels et al., 2005).

Upon its completion in 1998, the Gautreaux program had helped approximately 7,100 low-income families relocate from racially isolated public housing into private rental housing. The

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5 Although the Supreme Court’s consent decree in the Gautreaux litigation did not establish standards for neighborhood poverty rates, the program ensured that some participants would enter affluent neighborhoods by moving families out of public housing and into low-minority areas, particularly in the suburbs.
program also generated a large body of social science literature comparing the effects of relocation on participants who moved to the suburbs and the effects on participants who moved to integrated neighborhoods within the city limits of Chicago. On some metrics, particularly the academic achievement of children, the differences were significant. For example, researchers found that only five percent of children in the suburban households dropped out of school, whereas 20 percent of the children in the city households did (Rubinowitz & Rosebaum, 2000). Children in families who moved to predominantly white suburbs also showed higher rates of college attendance (27 percent versus 4 percent). Among Gautreaux family children who didn’t attend college after high school, children of suburban households were more likely than children of city households to be employed full time (75 percent versus 41 percent). Among adults, Rosenbaum (1995) found that participants who moved to suburban locations were more likely to be employed than those who remained within Chicago city limits. In a more recent study, Mendenhall, DeLuca, and Duncan (2006) looked at the employment earnings of women participants in the Gautreaux program. While they found no difference between city and suburban movers, they did find that women who moved to neighborhoods that had moderate-to-high resources (whether predominantly white or integrated) earned employment income for a significantly longer period of time than did women who lived in predominantly black neighborhoods with low resource levels.

Inspired by the encouraging results of the Gautreaux program, Congress initiated the MTO demonstration program through passage of the Housing and Community Development Act of 1992 (Goering et al, 2003). The MTO program was designed to test whether the Section 8 tenant-based rental assistance program could be used to help poor, predominantly minority public housing residents relocate from areas of concentrated poverty to private rental housing in low-poverty neighborhoods. Launched by HUD in 1994, the experimental program was implemented in five cities across the country—Baltimore, Boston, Chicago, Los Angeles, and New York. From September 1994 through July 1998, approximately 4,600 eligible families with children from public housing or project-based Section 8 housing located in census tracts with poverty rates above 40 percent enrolled in the program. Through a random assignment process, these volunteering families were divided into three groups (Goering et al. 2003):

1. The MTO treatment group, which received Section 8 certificates or vouchers to be used only in areas with poverty rates of 10 percent or less. Families in this experimental group also received mobility counseling from local nonprofit organizations to help with finding private rental units and other relocation matters.
2. A Section 8 comparison group that received regular Section 8 certificates or vouchers with no geographic restrictions on where they could use the vouchers. This group also did not receive any special counseling.
3. An in-place control group, which continued to receive its current project-based assistance.

While the design of the MTO program was similar to the Gautreaux program, there was one fundamental difference. Because the Gautreaux program was the product of civil rights litigation, it was explicitly designed to effect racial desegregation by moving black families to predominantly white suburbs and neighborhoods. In contrast, the MTO program design was based on class, not race. Participating families were allowed to move to any neighborhood where
10 percent or fewer residents lived in poverty regardless of the racial composition of the neighborhood. Notably, without this racial composition restriction, nearly 60 percent of the families in the experimental group who succeeded in using their voucher wound up in a census tract that was more than 80 percent minority, while only six percent moved to tracts that were less than 20 percent minority (Orr et al., 2003).

The original authorizing legislation for the MTO program charged HUD with describing the “long-term housing, employment, and educational achievements of the families assisted under the demonstration program.” An interim evaluation conducted four to seven years after families entered the program concluded that MTO had a significant positive effect on neighborhood quality for households assigned to the experimental group (Orr et al., 2003). Relative to families in the control group who remained in public housing, families that moved to lower-poverty neighborhoods were more likely to feel safe in their neighborhood, less likely to have been the victim of a recent crime, and less likely to report concerns about drug activity and other neighborhood problems (Orr et al., 2003; Kling, Liebman, & Katz, 2007). Researchers also found consistently significant improvements in adult mental health across a number of specific measures—distress, depression, anxiety, calmness, and sleep. In contrast, mental health outcomes for youth were mixed; while the female youth of families that moved to lower-poverty neighborhoods had better mental health outcomes than their control group counterparts, male youth in the experimental group demonstrated no such improvements. In fact, while moving to lower-poverty areas was associated with reduced violent behavior for both male and female youth, interim evaluations of the MTO program found that male youth in the experimental group were actually more likely to have been arrested than their control group counterparts (Orr et al., 2003; Kling et al., 2007).

Assessments of both the educational and employment-related effects of moving to lower-poverty areas were also less than promising. Researchers found no detectable improvements in academic achievements among students in the MTO experimental group, as well as no discernable effect on employment, earnings, or receipt of public assistance among adults who moved from public housing to subsidized rental housing in low-poverty neighborhoods (Briggs, Ferryman, Popkin, & Rendon, 2008; Orr et al., 2003).

Last fall, HUD published its final evaluation of the impacts of the MTO experiment on participating families (Sanbonmatsu et al., 2011). Again, researchers found that MTO experimental families enjoy significantly better mental health outcomes than the control group, showing lower levels of psychological distress and a lower prevalence of both depression and anxiety. However, in contrast to earlier studies, results from HUD’s final impacts evaluation show that MTO movers experienced improvements in physical health in addition to better mental health outcomes. Specifically, at the time of the long-term follow up (10 to 14 years after initial moves), adults who moved to lower-poverty areas experienced lower rates of extreme obesity, a lower prevalence of diabetes, and fewer self-reported physical limitations. As with the interim evaluations, however, HUD’s final assessment of the MTO program concludes that families in the experimental group did not experience better employment or income outcomes than other families, nor did the children in the experimental group show better educational achievement than children in the control group (Sanbonmatsu et al., 2011).
It must be noted that some scholars argue that the failure of the MTO program to produce positive effects on employment and earnings among experimental families does not indicate a lack of association between neighborhood characteristics and labor market outcomes. Instead, they contend that no discernable impacts on employment and earnings measures were observed because most experimental families spent relatively little time in low-poverty areas (Clampet-Lundquist & Massey, 2008). While the MTO program was fairly successful in assisting families make the initial move from high- to low-poverty areas, families in the experimental group spent just a little over a year in low-poverty neighborhoods on average. As Clampet-Lundquist and Massey (2008) explain, “neighborhood conditions are only likely to influence social and economic outcomes gradually over time” (p.112). Thus, where families reside in low-poverty areas for only a short duration of time, the benefits of greater neighborhood opportunity do not have time to take effect. In assessing the relationship of cumulative exposure to different neighborhood environments and selected economic outcomes, Clampet-Lundquist and Massey (2008) found that each additional month of residence in a nonpoor neighborhood is associated with a 1.1 percent increase in the odds of holding a job and a $1.59 (seggrated, nonpoor neighborhood) to $1.89 (integrated, nonpoor neighborhood) increase in weekly earnings. They also found that for each additional month that an MTO family lived in an integrated, low-poverty neighborhood was associated with a 1.5 percent decrease in the odds of receiving food stamps. Thus, while assessments of the MTO program have found little to no benefit in terms of employment-related outcomes overall, moves to low-poverty areas do appear to be associated with improved earnings and employment rates if the duration of time spent in a low-poverty neighborhood is taken into account.

**Improving Housing Mobility Programs through Comprehensive Opportunity Mapping**

The MTO program’s limited success in improving the economic self-sufficiency and educational achievements of families in the experimental group has led many prominent housing experts to conclude that housing mobility programs must broaden their operational definitions of neighborhood quality (Sanbonmatsu et al., 2011; McClure, 2010; McClure, 2011; Turner et al., 2011). Using poverty rates as the sole measure by which neighborhoods are identified as desirable or troubled can be limiting and may not accurately capture the extent to which a particular neighborhood offers opportunities for economic and social mobility. Thus, researchers have recently begun to incorporate additional dimensions of opportunity into assessments of neighborhood quality. These additional neighborhood quality metrics most commonly include employment rates and rates of public assistance receipt. Like poverty rates, data on these metrics are collected by the U.S. Census Bureau and are readily available across time for multiple geographies and demographic groups. However, in addition to these more readily available measures of neighborhood quality, researchers have also begun to include a variety of local data on school performance levels, neighborhood safety (measured by crime rates), proximity to public transportation, and access to amenities such as public parks into assessments of neighborhood opportunity.

Originally pioneered in the late 1990s by law professor and civil rights advocate John A. Powell, opportunity mapping offers perhaps the most comprehensive analytical framework for measuring neighborhood opportunity levels and determining who has access to opportunity-rich areas. While neighborhood opportunity was once only measurable by qualitative accounts of individual
observers, it is now objectively quantifiable thanks to recent advancements in cartography, data management, demography, systems analysis, and related social science fields (Reece & Schultheis, 2009). In particular, geographic information systems (GIS) have proven to be powerful analytical and communications tools for understanding the complex spatial and intersectional dimensions of poverty and community health. Through the use of GIS, multiple indicators of opportunity can be assessed at the same geographic scale, thereby allowing policy makers, advocates, and community members to develop a comprehensive opportunity map for a city or region. GIS allows these various stakeholder groups to describe, measure, and analyze the distribution of opportunity across a study area and enables comparisons of opportunity levels in different neighborhoods. Ultimately, by providing a clearer understanding of spatial inequalities, opportunity mapping can be used to evaluate neighborhoods’ relative strength in providing residents with access to fuller, healthier, more productive lives. It can also serve as a tool for identifying opportunity-poor communities in need of economic reinvestment and other targeted policy interventions.

In the context of housing mobility programs like the Section 8 program, opportunity mapping can inform mobility-counseling efforts and help guide voucher holders to areas that not only have low-poverty rates, but that also demonstrate high opportunity levels as measured by a variety of economic, educational, and social indicators. The Kirwan Institute for the Study of Race and Ethnicity, an organization at the forefront of opportunity mapping initiatives nationally, has produced the most comprehensive analyses of neighborhood opportunity levels experienced by voucher families in a number of cities across the U.S. For example, Kirwan Institute researchers recently used a 22-measure opportunity mapping model to rank neighborhoods based on three main opportunity pathways: access to educational opportunities, access to economic opportunities, and neighborhood quality (Reece et al., 2010). In at least one instance, voucher holder neighborhood outcomes based on the opportunity model were compared to an income-only measure. The study, which looked at neighborhood opportunity levels across the Baltimore metropolitan area, found that the two models returned differing assessments of neighborhood quality for over half (52 percent) of all Baltimore neighborhoods, thus suggesting that poverty-only assessments likely do not capture all of the neighborhood characteristics that influence individual well-being (Powell, 2005).

RESEARCH QUESTION

Building upon the research of the Kirwan Institute and others, this paper seeks to further explore the potential use of opportunity mapping by housing authorities charged with administering local Section 8 voucher programs. Using the city of Charlotte, North Carolina as a case study, this project presents a comprehensive map of neighborhood opportunity across the metropolitan area, including the surrounding areas of Mecklenburg County that fall outside of the Charlotte city limits. This opportunity analysis is then combined with data on the location of Charlotte’s Section 8 voucher holders to provide an assessment of the distribution of Section 8 participants across differing levels of neighborhood opportunity. Ultimately, this analysis is intended to answer the question of whether Section 8 voucher holders in the Charlotte metropolitan area have been successful in gaining access to opportunity-rich neighborhoods, or whether they tend to be concentrated in opportunity-poor areas.
RESEARCH METHODOLOGY

The methodology used to assess opportunity distribution across the Charlotte metropolitan area was adapted from the Kirwan Institute’s assessment of neighborhood opportunity in King County, Washington (Reece et al., 2010). Data for 21 distinct indicators of neighborhood opportunity were collected from a number of different publicly available data sources. These indicators are summarized in Table 3 below.

<table>
<thead>
<tr>
<th>Economic Opportunity</th>
<th>Educational Opportunity</th>
<th>Housing/Neighborhood Quality</th>
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</thead>
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<tr>
<td>Unemployment Rate</td>
<td>Student Poverty Rate</td>
<td>Neighborhood Poverty Rate</td>
</tr>
<tr>
<td>Population Receiving Public Assistance</td>
<td>Students Passing Math Tests</td>
<td>Foreclosure and Delinquency Rate</td>
</tr>
<tr>
<td>Proximity to Employment</td>
<td>Students Passing Reading Tests</td>
<td>Neighborhood Vacancy Rate</td>
</tr>
<tr>
<td>Economic Climate (Job Growth/Decline)</td>
<td>Students Passing Science Tests</td>
<td>Home Ownership Vacancy Rate</td>
</tr>
<tr>
<td>Commute Times Above 30 Minutes</td>
<td>Teacher Experience</td>
<td>Property Appreciation Rate</td>
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<tr>
<td></td>
<td>Teacher Qualifications</td>
<td>Proximity to Toxic Waste Release Sites</td>
</tr>
<tr>
<td></td>
<td>Dropout Rate</td>
<td>Hazardous Chemical Releases</td>
</tr>
<tr>
<td></td>
<td>Adult Educational Attainment</td>
<td>Access to Parks/Open Space</td>
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</table>

As shown in Table 3, each opportunity indicator was grouped into one of three opportunity categories: economic opportunity, educational opportunity, or housing/neighborhood quality. More detailed descriptions and data sources for each of the opportunity metrics in Table 3 are provided in Appendix A. For each indicator, data was gathered and analyzed for Mecklenburg County at the census tract level using 2000 census geographies. Thus, for the purposes of this study, each census tract was treated as a distinct neighborhood. Data for approximately half (10) of the opportunity metrics used are collected by the U.S. Census Bureau and are therefore readily available at the census tract level. However, 11 of the opportunity metrics used in this study are derived from non-Census based data. For these metrics, GIS analytic methods were employed to re-aggregate the non-Census based data to the census tract level.

Within the economic opportunity category, both the proximity to employment and economic climate metrics relied on data not originally available at the census tract level from the U.S. Census Bureau. Using job location data from the Census Bureau’s Longitudinal Employer-Household Dynamics (LED) program, GIS buffer analysis was used to determine the number of jobs located within five miles of each census tract centroid in both 2004 and 2009. The 2009 figure was used as the measure of proximity to employment for each census tract, while the growth (or decline) in this figure between 2004 and 2009 was used as the economic climate metric.

Within the educational opportunity category, all but the dropout rate and adult educational attainment metrics relied on non-Census based data. The student achievement, student poverty, and teacher quality data analyzed for this opportunity category all came from the North Carolina School Report Cards published by the North Carolina Department of Public Instruction. Data was first collected at the individual school level. GIS point in polygon analysis was then used to assign student achievement and teacher quality data to school zone boundaries for each school,
which were provided by the Mecklenburg County GIS data center. Finally, educational opportunity indicators were aggregated at the census tract level using spatially weighted averaging reflecting the amount of area overlap between census tract and school zone boundaries.

Only three of the housing/neighborhood quality indicators shown in Table 3 relied on non-Census based data—proximity to toxic waste release sites, hazardous chemical releases, and access to parks/open space. Proximity to toxic waste release sites was measured as the portion of each census tract located within three quarters of a mile from a facility registered with the Environmental Protection Agency’s (EPA) Toxic Release Inventory (TRI). This metric was calculated using facility location data obtained from the EPA’s TRI.NET database and simple buffer analysis. The hazardous chemical releases metric was then calculated as the amount of on-site chemical releases at each TRI facility, weighted by the portion of each census tract that fell within the three-quarter mile buffer surrounding each facility. Access to parks/open space was calculated using data provided by Mecklenburg County as the percentage of area within each census tract devoted to parks and other open space.

Once data for each opportunity indicator was collected, the data was then standardized across census tracts through the use of z scores—a statistical measure that quantifies the number of standard deviations a data point is from the mean of a data set. For each indicator within each census tract, the z score reflects the relative distance of that indicator from the data average for all of Mecklenburg County. A positive z score is always above the region’s mean, whereas a negative z score is always below the regional mean. Thus, the z scores for indicators that have a negative effect on opportunity (e.g., poverty rates, unemployment rates, etc.) were adjusted to reflect this fact, such that positive scores for such indicators were converted into negative scores and negative scores were converted to positive. After z scores for each individual metric were obtained, a composite z score for each opportunity category—economic opportunity, educational opportunity, and housing/neighborhood quality—was calculated by averaging the z scores for all indicators within that category. Census tracts were then sorted into quintiles based on their average opportunity scores for each opportunity category such that each tract was grouped into one of five opportunity classifications—very low, low, moderate, high, and very high. The final step of the opportunity analysis involved computing a comprehensive opportunity score by averaging the composite z scores for each opportunity category. Again census tracts were grouped into very low, low, moderate, high, and very high opportunity classifications using the same method described above to produce a map of comprehensive neighborhood opportunity levels across Mecklenburg County.

Once each census tract had been assigned a comprehensive opportunity score, Section 8 voucher location data was then overlayed on the comprehensive opportunity map as well on maps showing neighborhood opportunity levels for each of the three opportunity categories. The Section 8 voucher location data was provided by Hye-Sung Han at the UNC Center for Urban and Regional Studies. As of November 2011, the Charlotte Housing Authority (CHA) administered 4,841 Section 8 vouchers across Mecklenburg County, which includes 386 project-based vouchers. Because the project-based vouchers could not be isolated from the tenant-based vouchers, they are included in the analysis that follows. Additionally, while the CHA administers 4,841 vouchers, only 4,744 were successfully geocoded for analysis in GIS. Nonetheless, this
constitutes over 97 percent of all vouchers administered by the CHA. Using point-in-polygon analysis, the distribution of voucher holders across neighborhood opportunity levels was assessed. The findings are discussed in the following section.

FINDINGS

Although the Section 8 Housing Choice Voucher program is intended to foster greater residential mobility and access to high quality neighborhoods among subsidized households, an assessment of neighborhood opportunity levels and voucher holder locations in the Charlotte metropolitan area shows that voucher holders are largely concentrated in low opportunity neighborhoods. Figure 1 shows that more than three quarters of all voucher households in Mecklenburg County reside neighborhoods that have low and very low levels of comprehensive opportunity, while only 6.5 percent reside in neighborhoods that have high or very high levels of comprehensive opportunity. The percentages for the housing and neighborhood quality and educational opportunity categories are virtually the same as those for comprehensive opportunity. More than 70 percent of voucher holders reside in areas that possess low and very low levels of educational opportunity and housing and neighborhood quality. Only for the economic opportunity category did voucher holders fare somewhat better in terms of neighborhood characteristics. As shown in Figure 1, nearly a third of all voucher households reside in neighborhoods with high levels of economic opportunity, while another 7.5 percent of voucher families live in areas with very high levels of economic opportunity. Still, at the other end of the spectrum, more than a quarter of voucher holders are found in areas with very low levels of economic opportunity. Overall, voucher families in the Charlotte area are faring rather poorly in terms of access to high opportunity neighborhoods. The findings summarized in Figure 1 below are displayed visually in Maps 1 through 4 on the following pages.
Map 1. Comprehensive Neighborhood Opportunity and Voucher Household Locations in Mecklenburg County, North Carolina
Map 2. Housing and Neighborhood Quality and Voucher Household Locations in Mecklenburg County, North Carolina
Map 3. Neighborhood Educational Opportunity and Voucher Household Locations in Mecklenburg County, North Carolina
Map 4. Neighborhood Economic Opportunity and Voucher Household Locations in Mecklenburg County, North Carolina
As Maps 1 through 4 show, voucher households are not evenly distributed across Mecklenburg County. Instead, they are generally clustered in a band of census tracts that run from east to west across Mecklenburg County, slightly to the north of Charlotte’s central business district. In total, voucher households are found within approximately three quarters (111) of Mecklenburg County’s 144 census tracts. However, over 70 percent of all voucher holders reside in just a quarter (36) of the census tracts in the county. Thus, for Charlotte metropolitan area voucher holders, the Section 8 program appears to not only be failing to deliver on neighborhood quality, but also residential mobility as well.

By way of comparison, Charlotte area voucher holders appear to have much better neighborhood outcomes where poverty rates are used as the sole measure of neighborhood quality. As shown in Figure 2, more than a third of all voucher holders across Mecklenburg County reside in neighborhoods with poverty rates below 10 percent, which is the neighborhood poverty rate used in the MTO demonstration program to identify receiving neighborhoods for relocating families in the experimental group. As Figure 2 also shows, less than 10 percent of all Charlotte area voucher households live in extreme poverty neighborhoods with a poverty rate of 40 percent or more. The relatively low poverty rates experienced by the majority of voucher households in Mecklenburg County is in large part due to the fact that only a fairly small number of census tracts exhibit high or very high poverty rates. Map 5 shows that just eight out of the 144 census tracts in Mecklenburg County had poverty rates of 40 percent or more as of 2009 and only three additional tracts had a poverty rate between 30 and 40 percent. As with earlier comparisons, the differences shown here between neighborhood outcomes measured by comprehensive opportunity analysis versus corresponding outcomes measured only by neighborhood poverty rates were significant. Again, this suggests that poverty-only assessments are an imperfect proxy for the more complicated neighborhood dynamics that influence individual well-being.

Figure 2. Voucher Household Location by Neighborhood Poverty Rate
Map 5. Neighborhood Poverty Rates and Voucher Household Locations in Mecklenburg County, North Carolina

Legend
- Section 8 Households
- Charlotte City Limits
- Neighborhood Poverty Concentration
  - 0 to 10 Percent
  - 10 to 20 Percent
  - 20 to 30 Percent
  - 30 to 40 Percent
  - 40 Percent or More

Scale: 0 2.5 5 10 Miles
DISCUSSION

Improving neighborhood outcomes for low-income families has been a longstanding goal of the Section 8 housing voucher program. Unfortunately, evidence indicates that the Section 8 program has achieved only limited success in helping families find housing in higher opportunity neighborhoods. Across the Charlotte metropolitan area, more than three quarters of all voucher households live in low- or very low-opportunity neighborhoods, while just 6.5 percent of Section 8 families reside in neighborhoods with high or very high opportunity levels. These findings suggest that much more can be done to expand housing choices and improve neighborhood quality for voucher households.

While current political battles over the national debt have created a budget and policy environment that is hostile to broad new federal housing initiatives, local housing authorities may be able to use existing funds to experiment with initiatives aimed at improving the neighborhood outcomes of Section 8 households. This is particularly true for the Charlotte Housing Authority and other public housing agencies (PHAs) that participate in HUD’s Moving-to-Work (MTW) demonstration program. Authorized by Congress in 1996, the MTW program allows participating PHAs to seek exemptions from many existing public housing and Section 8 HCV program rules established by the U.S. Housing Act of 1937 and HUD regulations (Cadik & Nogic, 2010). The program also allows PHAs to combine their federal public housing operating subsidies, tenant-based assistance, and capital budgets into a single, flexible account. With this regulatory and budgetary flexibility, MTW PHAs are expected to test innovative, locally-designed strategies for providing rental housing assistance that meet three broad statutory goals: (1) reduce cost and achieve greater cost effectiveness in federal expenditures; (2) give incentives to families with children where the head of the household is working, seeking work, or is preparing for work by participating in job training, educational programs, or programs that assist people to obtain employment and become economically self-sufficient; and (3) increase housing choices for low-income families. Under their MTW agreement with HUD, participating PHAs must also ensure that at least 75 percent of the families receiving assistance are very low-income and that housing will be provided for substantially the same number of families and a comparable mix of family sizes as would have been served absent the demonstration program.

A comprehensive assessment of the CHA’s MTW program, known locally as the Moving Forward Program, is beyond the scope of this paper. However, the CHA has used the flexibility provided by the MTW program to undertake five major initiatives: rent reforms designed to increase incentives for residents to find employment; work requirements for all non-disabled, non-elderly residents of subsidized housing; expansion of supportive services such as GED, job readiness, and budgeting classes for residents subject to work requirements; educational initiatives designed to reduce absenteeism and increase academic achievement levels among children of families receiving housing assistance; and alteration of the CHA’s housing portfolio to provide additional housing opportunities in both mixed-income developments and opportunity-rich communities (Rohe, Cowan, & Han, 2011). For each of these Moving Forward initiatives, opportunity mapping could be used to inform and strengthen program design. Several recommendations for incorporating opportunity mapping into program implementation and service provision are discussed below. While this paper has focused principally on the neighborhood outcomes of families receiving tenant-based housing assistance through the
Section 8 HCV program, the recommendations offered below are not limited to tenant-based programs. Like most PHAs, the CHA relies on a mixture of conventional public housing, project-based Section 8 assistance, and Section 8 vouchers to provide housing assistance to low-income families. Therefore, recommendations for improving project-based housing assistance programs through opportunity mapping are also offered where pertinent.

Provide Opportunity-Based Mobility Counseling

The CHA currently requires all applicants entering the Moving Forward program to complete a “Good Neighbors” training program prior to receiving a Section 8 voucher (CHA, 2011). The training is designed to help families acclimate to a new neighborhood and avoid later voucher termination by providing information on topics such as building and zoning codes, property maintenance standards, and conflict resolution strategies. The training also addresses factors that families should consider when selecting a neighborhood. Through the use of opportunity maps, the CHA could easily incorporate opportunity-based mobility counseling into the “Good Neighbors” training program. While requiring that new Section 8 families use their vouchers only in high-opportunity neighborhoods is not likely to be feasible, training staff could encourage families to focus their housing search in high-opportunity areas. If staff resources and funding permits, the CHA might also seek to provide individualized opportunity-based mobility counseling in order to help guide households to neighborhoods that best suit their particular needs. For example, counseling could be tailored to address different transportation, service, and employment needs, as well as to satisfy personal desires to remain close to friends and family. Families with children might also be encouraged to move to neighborhoods with higher-performing schools. Although the “Good Neighbors” training is currently limited to new Section 8 applicants, the CHA could also seek to provide opportunity-based mobility counseling to existing Section 8 families that are considering a move.

Recruit and Retain More Landlords in High-Opportunity Neighborhoods

Encouraging Section 8 families to find homes in high-opportunity neighborhoods will lead to improved neighborhood outcomes for voucher households only to the extent that affordable rental units are available in adequate supply in these neighborhoods. One means of increasing the availability of housing for Section 8 families in high-opportunity neighborhoods is to recruit more landlords to participate in the Section 8 program. Comprehensive neighborhood opportunity maps would allow the CHA staff to identify high-opportunity neighborhoods and to focus landlord recruitment efforts in these areas. Landlord recruitment and retention involves continuous relationship building and often requires special services like expedited inspections and, in some cases, financial assistance. If necessary, the CHA might use the budgetary flexibility afforded by the MTW program to offer lease bonuses or other monetary incentives to landlords in high-opportunity neighborhoods to encourage their participation in the Section 8 voucher program.

Beyond opportunity-based recruitment initiatives, landlord participation in the Section 8 program could be increased by prohibiting landlords from refusing to rent to Section 8 families. While North Carolina law prohibits local governments from discriminating in zoning and land use permitting decisions based upon the fact that a proposed development will contain affordable
housing for low-income residents (N.C. Gen. Statutes ch. 41A, § 4, 2012), it does not require private landlords to rent to Section 8 voucher holders. The CHA could encourage the Charlotte City Council and the Mecklenburg County Board of Commissioners to pass local source-of-income legislation that makes it illegal to discriminate against Section 8 families.

*Increase the Supply of Affordable Housing in High-Opportunity Neighborhoods*

Targeted landlord recruitment initiatives could be made more effective by coupling such efforts with policies designed to expand the overall supply of affordable housing. As discussed earlier, the success of the Section 8 HCV program in promoting residential mobility and improving neighborhood outcomes for participating families is ultimately limited by the supply of affordable rental units (McClure, 2010; Pendall, 2000). A larger, more geographically diverse supply of affordable rental housing would mean greater choice for Charlotte’s voucher households. Inclusionary zoning offers one tool for increasing the production of affordable housing units across the Charlotte metropolitan area. Currently, the City of Charlotte is pursuing various regulatory and financial incentives to encourage private sector development of affordable housing. The City’s inclusionary housing program could be tailored to encourage the production of housing affordable to Section 8 families by providing special incentives such as increased density bonuses to developers that construct rental units targeted to very low-income households. The City might also use opportunity mapping to offer additional incentives like expedited permitting and fee waivers for the production of affordable units in high-opportunity neighborhoods.

In addition to market-based mechanisms for providing housing for low-income families, the CHA can also increase the supply of affordable housing in high-opportunity neighborhoods directly through the construction of new housing developments. Using the single-fund flexibility allowed by the MTW program, the CHA has already implemented several initiatives to provide additional housing opportunities in mixed-income developments and in opportunity-rich communities both through new construction as well as through the acquisition and rehabilitation of existing multi-family developments (Rohe et al., 2011). The CHA could incorporate opportunity mapping analysis into site selection and approval criteria in order to ensure that the majority of these new and rehabilitated public housing and project-based Section 8 units are located in high-opportunity neighborhoods.

*Provide Larger Rent Subsidies in High-Opportunity Neighborhoods*

Even with an expanded supply of affordable housing and targeted landlord recruitment efforts, Section 8 voucher families may still face difficulty in finding apartments at or below the regional FMR in high-opportunity neighborhoods. The CHA has already undertaken participant tracking efforts to identify areas low Section 8 participation and plans to request an increase in the FMR for such areas in order to alleviate the over-concentration of Section 8 families in certain Charlotte neighborhoods (CHA, 2011). The CHA also plans to increase the number of exception payment standard areas in which the Authority would be allowed to pay higher rents in order to provide greater housing opportunities in areas of Charlotte and Mecklenburg County that have low concentrations of Section 8 families. While the CHA’s deconcentration efforts are a positive step toward improving neighborhood outcomes for Section 8 families, the Authority should seek
FMR increases and target additional exception payment standard areas based on a more comprehensive assessment of neighborhood opportunity levels, and not solely upon the concentration of Section 8 families. Specifically, using opportunity mapping analysis, the CHA could target the highest opportunity neighborhoods for exception payments, while increasing FMRs for all high and very high opportunity neighborhoods.

CONCLUSION

Since the mid-1970s, the Section 8 voucher program has sought to provide greater opportunities for low-income renters to obtain quality housing outside of high-poverty neighborhoods. Although Section 8 tenant-based rental assistance has proven more effective than conventional public housing and project-based Section 8 subsidies in improving the neighborhood outcomes of low-income families, research indicates that a significant portion of voucher households continue to live in areas of concentrated poverty. Moreover, while the past 20 years have seen two major policy experiments designed explicitly to help families move from high-poverty to low-poverty areas, the benefits of such programs have been largely limited to improvements in mental and physical health, with no significant gains in employment, earnings, or reduced receipt of public assistance. The mixed success of these special mobility programs has led a number of prominent housing experts to recommend that high-quality receiving neighborhoods be identified based not solely by poverty rates, but also by neighborhood employment, education, crime, and housing tenure characteristics.

Opportunity mapping is a highly dynamic tool that can be used to integrate these various metrics into a comprehensive assessment of neighborhood quality. Using the analytical power of GIS software, opportunity mapping allows researchers, policymakers, and housing advocates to better understand the spatial distribution of opportunity across a metropolitan area. By conveying a wealth of socioeconomic data in a widely understandable medium, opportunity maps provide a valuable diagnostic tool for connecting Section 8 and other low-income families to affordable housing in high-opportunity neighborhoods. Opportunity maps also provide an instrument for identifying opportunity-deprived neighborhoods in critical need of targeted reinvestment. Ultimately, opportunity maps can be used both to improve the implementation of existing housing and community development programs and to help shape the design of new policies.

This paper uses socioeconomic and Section 8 household location data for the Charlotte metropolitan area to demonstrate the use of opportunity mapping for assessing the neighborhood opportunity levels experienced by recipients of tenant-based rental subsidies. Using publicly available data provided by a mix of federal, state, and local government agencies, a total of 21 indicators were used to develop a comprehensive neighborhood opportunity score for all 144 census tracts in Mecklenburg County (see Appendix A, Tables A1-A3). The results of this analysis show that more than three quarters of all voucher households in the Charlotte metropolitan area reside in low or very low opportunity neighborhoods. Moreover, approximately 70 percent of all voucher holders reside in just a quarter (36) of the census tracts in the county. These findings suggest that much more can be done to expand housing choices and improve neighborhood quality for Charlotte area voucher households.
At the same time that opportunity mapping is used to identify shortcomings in the provision of affordable housing in high-opportunity neighborhoods, it also provides a tool for remediying current programmatic failures. To that end, opportunity mapping can be used to design policies to improve the locational outcomes of Charlotte area voucher holders. Such policies could include: providing opportunity-based mobility counseling to encourage Section 8 families to seek housing in high-opportunity neighborhoods; recruiting landlords in high-opportunity neighborhoods to participate in the Section 8 program; increasing the supply of affordable-housing in high-opportunity neighborhoods through zoning reform and inclusionary zoning programs; and providing larger rent-subsidies in high-opportunity neighborhoods to facilitate moves by voucher families. Of course, even if opportunity-based mobility counseling and increased rent subsidies were available, many low-income households would continue to live in lower opportunity neighborhoods. Section 8 participants are often unwilling to relocate for fear of losing the social support provided by friends and family members that live within their current neighborhood. Therefore, opportunity mapping should also be used to guide investment toward opportunity-deprived neighborhoods. Both direct public spending initiatives and economic incentives for private investors should be used to bring new opportunities to opportunity-poor neighborhoods.

While the case study presented in this report demonstrates the use of opportunity mapping for assessing and improving the neighborhood quality of low-income families, the methodology used to quantify neighborhood opportunity levels across the Charlotte metropolitan area is meant to provide a general template upon which future analyses can be built and refined. To that end, the analysis presented above could be improved in several ways. First, future opportunity mapping efforts for the Charlotte area may benefit from the use of a smaller geographic unit of analysis. While census tracts were used to define neighborhood boundaries for the purposes of this study, the use of census block groups might better reveal spatial disparities in opportunity levels that are masked when neighborhood opportunity metrics are aggregated at the census tract level. Second, the opportunity mapping analysis presented in this study could be improved through the inclusion of additional neighborhood quality metrics. In particular, data on neighborhood crime rates should be incorporated into future opportunity mapping initiatives. While crime data is not publicly available at the census tract level, this data might be obtained from the Charlotte-Mecklenburg Police Department through a public records request. Some measure of access to public transportation should also be included in future opportunity mapping efforts. In many cases, Section 8 families cannot afford the expenses associated with car ownership and must rely on public transportation to get to work or carry out other daily activities. Thus, even where a neighborhood exhibits high overall opportunity, it may be impractical or infeasible for a voucher household to move to such a neighborhood if public transportation is not available. Proximity to grocery stores, health care providers, and social services might also be added to future opportunity analyses.

One of the greatest strengths of opportunity mapping is its adaptability. While the number of indicators to be included in any analysis is in some respects limited only by data availability, an opportunity map is useful only to the extent that it facilitates decision-making processes. The more data that is included, the more difficult it may become to understand the results. Community involvement in the mapping process is one means by which map producers can improve the reliability of their analyses. Involving local stakeholders such as developers, housing
advocates, and Section 8 participants will ensure that opportunity maps are “ground-truthed” such that the results of the analysis match the public’s common understanding of which neighborhoods are considered desirable and which are considered troubled. Moreover, public involvement in the mapping process can build trust between various stakeholders as well as a sense of empowerment among community members seeking to promote a more equitable distribution of opportunity across the metropolitan area.
REFERENCES


Goering, J., Feins, J. D., & Richardson, T. M. (2003). What have we learned about housing mobility and poverty deconcentration? In J. Goering & J. D. Feins (Eds.), *Choosing a better life: Evaluating the Moving to Opportunity experiment* (pp. 3-36). Washington, DC: The Urban Institute Press.


## Table A1. Economic Opportunity Indicators

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<th>Opportunity Category</th>
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<td>Foreclosure and Delinquency Rate</td>
<td>Estimated percent of mortgages to start foreclosure process or be seriously delinquent in past 2 years</td>
<td>HUD User Neighborhood Stabilization Program Data, HUD Provided Local Level Data, 2008. Available from: <a href="http://www.huduser.org/DATASETS/nsp_foreclosure_data.html">http://www.huduser.org/DATASETS/nsp_foreclosure_data.html</a>.</td>
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<td>Access to Parks/Open Space</td>
<td>Percent of census tract area dedicated to parks/open space</td>
<td>Mecklenburg County GIS Data Center, Parks Shapefile. Available from: <a href="https://gisdata.mecklenburgcountync.gov/">https://gisdata.mecklenburgcountync.gov/</a>.</td>
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