Vouchers and Neighborhood Distress: The Unrealized Potential for Families With Housing Choice Vouchers To Reside in Neighborhoods With Low Levels of Distress

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Abstract

The Housing Choice Voucher (HCV) program seeks to help poor households locate in high-opportunity neighborhoods, but experts have reached little agreement on how to define high opportunity. *Using* low poverty *as the sole criterion has proven ineffective. We offer an alternative metric to assess the level of distress in neighborhoods using multiple measures of neighborhood condition. With this new metric, we examine the extent to which female-headed families with children who have housing choice vouchers reside in census tracts with varying levels of distress by comparison with the availability of affordable rental housing. We find that HCV families are underrepresented in the least-distressed neighborhoods. The problem is especially acute among Black and Hispanic households.*

Introduction

The Housing Choice Voucher (HCV) program constitutes the single largest housing subsidy program for low-income households in the United States and is among very few housing programs to increase in size over the past quarter century. More than 2.3 million households received housing choice vouchers as of 2012, accounting for nearly one-half of all recipients of "deep" federal housing subsidies—subsidies that generally ensure that recipients pay about 30 percent of their income for rent.[1] Whereas public housing and other project-based rental subsidy programs have decreased in size, the HCV program has continued to grow, if only in fits and starts (Schwartz, 2014). The program was originally conceived as a more cost-effective way of providing housing subsidies, because it costs less to help pay the rent for an apartment in an existing building than to subsidize the construction and operation of new rental housing. Advocates subsequently have also championed vouchers for their potential to help low-income families avoid the most-troubled neighborhoods and reside in neighborhoods that afford opportunities for education and employment.

Although vouchers have proven to be less expensive than project-based rental assistance (Deng, 2005; GAO, 2002), the evidence is much more mixed with regard to their locational advantages. Compared with people living in public housing, voucher holders generally live in neighborhoods with lower levels of poverty. Much less difference is evident in neighborhood characteristics when the HCV program is compared with other project-based subsidy programs. Voucher holders, along with other recipients of low-income housing subsidies, are underrepresented in neighborhoods with the lowest poverty rates. Moreover, vouchers have been ineffective in countering racial segregation. As a result, the HCV program has not lived up to expectations in helping low-income families reside in places that provide good schools and other services and that enjoy access to suburban job opportunities.

In this article, we shed more light on the ability of the HCV program to help families avoid the most-distressed neighborhoods and access neighborhoods with the greatest opportunities. Focusing on female-headed families with children under age 18, we find that voucher recipients are underrepresented in the least-distressed neighborhoods and overrepresented in neighborhoods with the highest level of distress. These patterns are especially acute among Black and Hispanic voucher holders but are also evident to some degree among White voucher holders. Our analysis is based on tract-level data for 2013 from the American Community Survey (ACS) 2013 (2009–2013 data pooled) and from administrative records for 2013 on the HCV program. The analysis covers all census tracts located in metropolitan statistical areas (MSAs); nonmetropolitan areas are excluded from the analysis.

The article is organized as follows: In the following literature review, we position our central research questions within the context of previous research on housing vouchers. The subsequent section lays out our analytic approach and data sources. In the next section, we present our findings, focusing on the representation of voucher holders in census tracts with varying levels of

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[1] The HCV program permits households to pay as much as 40 percent of income toward rent plus utilities. In addition, it appears that about 17 percent of all HCV households pay more than 40 percent of income toward housing due to irregularities in measuring income and other administrative problems (McClure, 2005).

socioeconomic distress and with varying racial and ethnic composition. In the concluding section, we discuss the policy implications of the study, especially regarding the federal government's final rule, Affirmatively Furthering Fair Housing, issued in July 2015.[2]

Literature Review

Although the HCV program is the largest federal housing subsidy program for low-income house-holds in the United States, it has received relatively little research—certainly less than public housing, a program that has diminished in size since the mid-1990s. As noted previously, a few studies have compared the cost of the HCV program with public housing and other project-based subsidy programs and found that vouchers are more cost effective (Deng, 2005; GAO, 2002). A larger number of studies have examined the locational outcomes of voucher holders. Most of these latter studies, however, have looked not at the HCV program as a whole but at much smaller initiatives that include vouchers (Schwartz, 2014).

Perhaps the first influential study on the failure of vouchers to reach their potential to help low-income households' access high-opportunity neighborhoods was Newman and Schnare's article in *Housing Policy Debate* (1997) on the locational outcomes of recipients of different subsidy programs. They found that, although voucher holders tended to reside in neighborhoods with lower levels of poverty and other indicators of distress than did residents of public housing, voucher holders were underrepresented in census tracts with the lowest levels of poverty and in tracts with predominantly White populations. Pendall (2000) also examined the spatial distribution of voucher holders nationwide. He found that they were more likely to concentrate in highly distressed census tracts when rental housing is concentrated in these tracts. He also found this concentration to be pronounced when voucher holders are predominantly Black and live in predominantly White metropolitan areas (Pendall, 2000). Galvez (2011) found similar patterns in her regression analysis of the residential locations of voucher holders. Devine et al. (2003) examined the geographic distribution of voucher holders in the 50 largest metropolitan areas in 2000. They found that voucher holders are widely distributed but are underrepresented in low-poverty neighborhoods. They also found that minority voucher holders were more likely than White voucher holders to reside in high-poverty areas. Another key finding was that voucher holders seldom cluster within the same census tracts—they rarely account for more than 5 percent of total households in a census tract. McClure, Schwartz, and Taghavi (2015) updated and expanded Devine et al.'s research and found that little had changed in the geography of voucher holder residence from 2000 to 2010.

In another study, McClure (2010) combined administrative data for 2010 from the U.S. Department of Housing and Urban Development (HUD) and census block group data from the 2000 census to assess the extent to which voucher recipients accessed "neighborhoods of opportunity." These neighborhoods had low rates of poverty but also low levels of assisted housing, unemployment, welfare usage, minority concentrations, and female-headed households. He found that voucher holders are currently underrepresented in these neighborhoods relative to the supply of affordable rental units, but he also found that the number of affordable units in these

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[2] "Affirmatively Furthering Fair Housing: Final Rule," *Federal Register* 80 (116) July 16, 2015. http://www.gpo.gov/fdsys/pkg/FR-2015-07-16/pdf/2015-17032.pdf.

neighborhoods was much too small to absorb a large increase of voucher holders. In addition to these national studies, several studies of voucher use within particular cities and metropolitan areas have been conducted. For example, Wang and Varady (2005) employed a "hot-spot analysis" of voucher holder residence in the Cincinnati, Ohio metropolitan area and found that voucher recipients were overrepresented in the city's poorest and predominantly minority neighborhoods.

Much, if not most, of the research to date on housing vouchers has focused on special programs that use vouchers to help former public housing residents relocate to less-distressed neighborhoods. The Moving to Opportunity for Fair Housing (MTO) demonstration program alone has probably seen more research than the HCV program as a whole. The Gautreaux decree in Chicago, Illinois, a progenitor of MTO, has also been studied extensively. Researchers have also studied the use of vouchers by households displaced by the demolition of public housing under the federal HOPE VI Program.

The MTO demonstration program was designed to study how neighborhood conditions affect a variety of socioeconomic, educational, and health outcomes for low-income families. The program took place in five cities. A total of 4,610 households from distressed public housing were assigned to three groups: (1) a control group consisting of original public housing residents who stayed in place, (2) public housing residents who were assigned regular housing vouchers and treated the same as all other voucher recipients, and (3) an experimental group of public housing residents who were also given vouchers but were allowed to use them only in census tracts with poverty rates at less than 10 percent. The members of the experimental group were also given a limited amount of assistance in finding eligible housing. Program participants were tracked for about 10 years. Researchers used a wide range of methods—quantitative and qualitative—to assess the extent of "neighborhood effects" on educational attainment, employment, health, mental health, and other outcomes. The final report on the program, published in 2011, found that MTO had no significant effect on educational attainment among the participating children or on the employment or income of the parents. The program did improve the participants' sense of safety, however, and was shown to improve certain aspects of mental health, physical health, and overall sense of well-being (Sanbonmatsu et al. 2011; see also Briggs et al., 2010; Ludwig, Ladd, and Duncan, 2001; Ludwig et al. 2011, Ludwig et al. 2012). The educational and employment outcomes led some observers (for example, Imbroscio 2012) to view MTO as a failure and sometimes as evidence of the futility of residential mobility as a means of improving the life chances of low-income families.

Certain limitations in the design and implementation of the MTO program, however, probably contributed to the disappointing results. Most important to this discussion, by contrast with Gautreaux, MTO had no restrictions on the racial and ethnic composition of the neighborhoods to which members of the experimental group could move. As a result, most ended up in predominantly minority census tracts, often in close proximity to their original homes and usually within the same underperforming school district. In addition, many participants ended up in census tracts with poverty rates higher than the 10-percent maximum; the program began in the mid-1990s, and the 2000 census showed that many of the tracts to which participants had moved saw poverty rates increase to more than 10 percent by 2000 (Briggs et al., 2010). Moreover, many participants, after moving to low-poverty neighborhoods, ended up moving back to impoverished neighborhoods very similar to those they had originally come from (Briggs et al., 2010). As a result, many participants resided in high-poverty, racially segregated neighborhoods during much of MTO's duration.

Although HUD's evaluation of MTO found no effect on educational or economic outcomes, some studies did detect a positive impact. Turner et al. (2012) analyzed MTO's program evaluation data, controlling for the amount of time participants resided in "high opportunity neighborhoods," defined by low poverty rates and high levels of educational attainment. They found that the longer participants lived in these high-opportunity neighborhoods, the better the outcomes in health, work, and school. For example, they found that "an adult who lived in neighborhoods with poverty rates averaging 16 percent over the demonstration period had a predicted monthly income $233 higher at the end of the period than an adult who lived in neighborhoods with poverty rates averaging 41 percent. The corresponding differences in boys' predicted English and math test scores equate to nearly a year of instruction" (Turner et al., 2012: 5). Unlike other analyses of MTO data, however, Turner et al. did not employ an experimental design, and their findings may therefore be subject to selection bias.

Chetty, Hendren, and Katz (2015), who make direct use of the experimental design of MTO, also discerned a positive effect on education and income in MTO, but only for children who moved to low-poverty neighborhoods at a relatively early age. Drawing on administrative data from tax returns, the researchers compared the long-term outcomes for children who moved to lower-poverty areas when they were less than 13 years old with the outcomes for children who moved when they were age 13 or older. They found that, years later, the younger children were more likely to attend and complete college than were their older counterparts and that they earned significantly higher incomes as adults.

The Gautreaux settlement derived from a federal lawsuit against the Chicago Housing Authority and HUD for violations of the Fair Housing Act. The resulting consent decree required 7,100 residents of public housing and other subsidized housing projects to gain the opportunity to move to neighborhoods with low rates of poverty and low levels of racial segregation. Public housing residents applied through a lottery for the program, which ran for 22 years. Winners who passed the subsequent screening criteria were given the chance to move to the suburbs or to certain inner-city neighborhoods. Research by Rosenbaum and colleagues found that participants who moved to suburban locations saw substantial improvements in educational attainment, employment, and income (Rosenbaum, 2012). The research has been criticized because of the lack of a control group and because of potential selection bias (participants had to be motivated to enter the lottery and pass the eligibility standards; most of the Gautreaux research was retrospective, with "unsuccessful" households potentially underrepresented in the sample). Nevertheless, the research does suggest that Gautreaux's requirement that participants move to places with low levels of poverty and racial segregation led to improvements in educational and employment outcomes.

Finally, in addition to studying MTO and Gautreaux, researchers have examined how vouchers affected socioeconomic and other outcomes for low-income households who were displaced by the demolition of public housing and the conversion of other federally subsidized developments to market-rate occupancy. For example, the Urban Institute tracked the census tracts to which households displaced by the Hope VI Program for public housing redevelopment have moved. As with the MTO research, these studies found that former public housing residents use vouchers to move to neighborhoods with substantially lower levels of poverty but that remain highly segregated (Kingsley, Johnson, and Petit, 2003).

In sum, much of the research on rental vouchers has focused on relatively small programs such as MTO, Gautreaux, and HOPE VI. MTO, for example, was limited to only 5,000 households, and operated in only five cities. Its results are not necessarily reflective of the broader voucher program. The HCV program as a whole has seen relatively little research—and with nowhere near the funding allocated to the evaluation of MTO. Moreover, much of the research on the HCV program dates to the late 1990s and early 2000s (an exception is Martha Galvez's doctoral dissertation [2011]). The research to date shows that, although voucher holders tend to reside in census tracts that are less impoverished than those of most public housing developments, they are substantially underrepresented in tracts with the lowest rates of poverty. Moreover, if vouchers enable recipients to avoid neighborhoods with the highest rates of poverty, they are much less effective in countering racial segregation.

The aim of this article is to extend our understanding of the locational outcomes of the HCV program. Rather than focus entirely on the extent to which voucher holders reside in neighborhoods with varying degrees of poverty or in neighborhoods that are more or less subject to racial segregation, this article examines the interrelationship between neighborhood distress and race and ethnicity in shaping residential opportunities for voucher holders. As discussed in the next section, we examine the distribution of voucher recipients who are female-headed families with children as compared with the distribution of those who live in affordable rental housing in census tracts with varying degrees of distress and with different racial and ethnic compositions. The article shows that, without addressing the realities of racial segregation, it is extraordinarily difficult for minority voucher holders to reside in neighborhoods that are not subject to high rates of poverty and other dimensions of neighborhood distress.

Data and Analytic Approach

The research presented here is based on ACS data for all census tracts in metropolitan areas of the United States in 2013 (5-year estimates) and tract-level data provided by HUD on female-headed families with children who have housing choice vouchers ("voucher families"), partitioned by race and Hispanic status. We look at the distribution of all voucher families and of non-Hispanic White, non-Hispanic Black, Hispanic, and other voucher families in census tracts with (1) varying levels of distress and (2) varying racial and ethnic compositions. We also examine intermetropolitan variations in the degree to which voucher families reside in tracts with low levels of distress. We limit the analysis to voucher recipients who are female-headed families with children because they would presumably benefit the most from the educational and other opportunities associated with low-distress neighborhoods (Chetty, Hendren, and Katz, 2015). They account for 36 percent of all voucher recipients in metropolitan areas. (Elderly and disabled households account for 49 percent of all voucher recipients, and other households account for 15 percent.)

Briggs and Turner (2006) suggest that we know too little about what constitutes a true high-opportunity neighborhood and that a definition of such a neighborhood must incorporate more than just poverty. One of the many lessons from the MTO demonstration is that poverty alone is not an effective measure of the level of opportunity in a neighborhood. Although poverty correlates with many aspects of neighborhood distress, it does not, by itself, fully capture every aspect of distress. The MTO program sought to improve the lives of impoverished public housing residents

by guiding them to high-opportunity neighborhoods where the households could obtain good housing with access to good schools and gainful employment. For purposes of the MTO program, high-opportunity neighborhoods were operationally defined as tracts with poverty at less than 10 percent. This definition proved to be inadequate, because households participating in the program too often moved to tracts with poverty at less than 10 percent but that remained racially segregated with poorly performing schools. If the HCV program is to succeed in guiding disadvantaged households into high-opportunity neighborhoods, it must identify those neighborhoods with more precision than can be obtained using level of poverty as the sole indicator of distress. The Gautreaux program may have found greater success because it employed more criteria than just poverty level to identify neighborhoods where participating households could locate.

Following Kasarda (1993) and Pendall (2000), we developed a neighborhood distress index. The index is based on five variables: (1) poverty rate, (2) percent female-headed households, (3) unemployment rate, (4) percent of households receiving public assistance, and (5) percent of adults not in school and without a high school diploma. These variables were found by Kasarda to correlate with distress. To create the index, we calculated Z scores for each variable, summed up the Z scores across the five variables, and divided the nation's 72,181 census tracts into quintiles based on their summed Z scores.

Exhibit 1 compares the distribution of census tracts nationwide based on the distress index with the distribution based on the poverty rate alone. If the two distributions correlate strongly, then it would seem that the distress index would be of little value—adding extra complexity when the poverty rate alone would suffice in categorizing neighborhoods. Poverty and the distress index, however, are not perfectly aligned. Overall, a tract's poverty rate quintile "predicts" its distress index quintile correctly only 56 percent of the time. For example, exhibit 1 shows that 69 percent of the census tracts in the lowest quintile of poverty rates are also in the lowest quintile of tracts based on the distress index; only 44 percent of the tracts in the second poverty-rate quintile are in the corresponding distress-index quintile.

In addition to developing an index for neighborhood distress, we sorted the nation's census tracts into four categories based on the percentage of different racial and ethnic groups: (1) White, (2) Black, (3) Hispanic, and (4) integrated. Predominantly White tracts include those where non-Hispanic White residents comprise 75 percent or more of the population. In predominantly Black tracts, Black residents make up 50 percent or more of the population. Hispanic residents account for 50 percent or more of the population in predominantly Hispanic tracts. We refer to all other census

Exhibit 1

Comparison of Tracts by Distress and Poverty Categories

Poverty Quintile	Distress Quintile						Percent	
	Very Low	Low	Moderate	High	Very High	Total	Correct	Incorrect
1st	9,949	3,548	803	127	9	14,436	69	31
2nd	3,815	6,336	3,421	824	40	14,436	44	56
3rd	752	3,879	6,149	3,277	380	14,437	43	57
4th	89	748	3,761	7,231	2,607	14,436	50	50
5th	6	89	450	3,052	10,839	14,436	75	25
Total	14,611	14,600	14,584	14,511	13,875	72,181	56	44

tracts as being "integrated." Predominantly Black or Hispanic tracts are defined as those with more than one-half of the population comprising one of these minority groups. Most tracts in the nation, however, have a majority White population. Thus, the standard for predominantly White tracts is set higher, at 75 percent, to identify those tracts with very-low levels of racial or ethnic integration.[3]

Findings

The following discussion focuses first on the geographic distribution of voucher families in census tracts with varying levels of distress in comparison to that of voucher-eligible housing (as defined by rents up to the prevailing fair market rents (FMR). We then compare the distribution of voucher families and voucher-eligible housing in tracts of varying racial and ethnic composition. The following analysis examines the distribution of voucher families in census tracts with varying levels of distress and with varying racial and ethnic compositions. We then look at intermetropolitan variations in the representation of voucher holders in low- and very-low levels of distress.

Neighborhood Distress

Voucher families are underrepresented relative to the availability of affordable housing in census tracts with the lowest levels of distress and are overrepresented in tracts with the very highest levels of distress. Exhibit 2 compares the average percentage of female-headed families with vouchers in each distress category with the percentage of affordable rental housing costing no more than the area's Fair Market Rent (FMR). It also shows the distribution of White, Black, and Hispanic families with vouchers by neighborhood distress level.

Whereas 8.0 percent of all affordable rental units are located in census tracts classified as having the lowest level of distress, only 3.7 percent of all voucher families reside in these tracts. Moreover, all four groups of voucher holders—White, Black, Hispanic, and other (Asian, Native American, Pacific Islander)—are underrepresented, Black and other voucher holders by substantial margins, with less than one-half the share of voucher holders locating to these very-low-distress tracts as are White voucher holders. Voucher families are also underrepresented in the next two quintiles of neighborhood distress. Whereas 14 percent of all affordable units are in low-distress tracts, only 8 percent of all voucher families reside in those tracts. In the middle-distress group, the percentage of voucher families is 4 percentage points less than the share of all affordable units. On the other hand, tracts with very high levels of distress account for 36 percent of all affordable units but 49 percent of all voucher families.

Minority voucher holders are especially underrepresented in tracts with low levels of neighborhood distress. Although non-Hispanic White voucher holders are slightly underrepresented in the very low-distress category relative to the percentage of all affordable housing, Black and Hispanic voucher holders are significantly underrepresented, and other voucher families are

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[3] See the bottom panel of exhibit 4 for a breakdown of the number of census tracts, households, and voucher holders in each racial/ethnic category. It shows that nearly one-half (48 percent) of all census tracts are predominantly White, 35 percent are integrated, and 8 and 9 percent, respectively, are predominantly Black and Hispanic. On average, White voucher holders account for 88 percent of the population in predominantly White tracts; Black voucher holders 74 percent in predominantly Black tracts; and Hispanic voucher holders 71 percent in predominantly Hispanic tracts.

underrepresented to a lesser degree. Non-Hispanic White voucher holders are slightly overrepresented relative to the availability of affordable units in low-distress tracts, but all three minority groups are underrepresented, again especially Black and Hispanic voucher holders. For example, in low-distress neighborhoods, the percentage of Black and Hispanic voucher families, each at about 7 percent, is about one-half the percentage of all affordable housing (14 percent).

Exhibit 2 shows that the distribution of voucher families tracks closely with that of all affordable units in the fourth-highest distress category, at around 25 percent. Voucher families, however, are drastically overrepresented in the highest distress category. Whereas 36 percent of all affordable units are located in tracts with very high levels of distress, the same is true of 53 percent of all Black voucher families, 52 percent of all Hispanic voucher families, and 39 percent of all other voucher families; White voucher families, on the other hand, are underrepresented, at 31 percent.

Exhibit 2

Average Percent of HCV Female-Headed Families With Children in MSAs by Race/Ethnicity by Tract Level of Distress

Distress Quintile	Affordable Units (%)	HCV Female-Headed Families With Children (%)				
		Total	White	Black	Hispanic	Other
Very low	8.0	3.7	7.1	2.9	2.7	5.6
Low	13.8	8.4	14.6	6.9	7.3	11.3
Moderate	17.7	14.0	20.6	12.5	12.6	16.3
High	24.4	25.0	26.2	24.4	25.7	27.4
Very high	36.1	48.9	31.3	53.3	51.6	39.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

HCV = housing choice voucher. MSA = metropolitan statistical area.

Neighborhood Racial and Ethnic Composition

Exhibit 3 shows the distribution of affordable rental housing and of voucher families in neighborhoods with varying racial and ethnic compositions. It compares the average percentage of affordable units and voucher families in census tracts where non-Hispanic White families comprise 75 percent or more of the population, where Black families comprise 50 percent or more, where Hispanic families comprise 50 percent or more and in integrated neighborhoods where none of the voucher families—White, Black, or Hispanic—are dominant by these measures.

Exhibit 3

Average Percent of HCV Female-Headed Families With Children in MSAs by Race/Ethnicity and by Racial/Ethnic Dominance of Tract

Tracts by Racial or Ethnic Dominance	Affordable Units (%)	HCV Female-Headed Families With Children (%)				
		Total	White	Black	Hispanic	Other
75+ percent White	25.0	15.3	46.3	8.5	8.3	15.4
50+ percent Black	12.9	28.3	4.5	41.7	5.7	5.6
50+ percent Hispanic	17.5	16.4	12.0	9.5	47.6	13.9
Integrated	44.6	40.0	37.3	40.3	38.4	65.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

HCV = housing choice voucher. MSA = metropolitan statistical area.

Voucher holders overall are underrepresented in predominantly White neighborhoods, and White, Black, and Hispanic voucher families tend to reside in tracts dominated by their own racial or ethnic group. Whereas 25 percent of all affordable rental units are located in predominately White census tracts, only 15 percent of all voucher families reside in these neighborhoods. Of all White voucher families, however, 46 percent reside in these predominantly White tracts. Conversely, only about 8 percent of all Black and Hispanic voucher families reside in predominantly White neighborhoods.

Compared with the distribution of affordable rental housing, voucher families are overrepresented in predominantly Black census tracts but are proportionately represented in predominantly Hispanic tracts. Exhibit 3 shows that, whereas 13 percent of all affordable units are in predominantly Black tracts, 42 percent of all Black voucher families locate in these tracts. By contrast, only about 5 percent of all White voucher holders and 6 percent of all Hispanic and other voucher holders reside in these predominantly Black neighborhoods. Exhibit 3 also shows that, although the proportion of voucher families in predominantly Hispanic census tracts is only a percentage point less than the 17.5-percent share of all affordable units, these tracts account for nearly one-half of all Hispanic voucher holders but about 10 percent of all Black voucher holders and about 12 percent of all White voucher recipients.

Although voucher holders most often reside in tracts dominated by members of their racial or ethnic group, a substantial portion also live in "integrated" census tracts where no one group is dominant (at least by the definitions used here). Moreover, the proportion of voucher holders in these integrated neighborhoods tracks fairly closely with the share of all affordable housing located there. Nearly 45 percent of all affordable units are found in integrated census tracts, and these tracts are also home to 40 percent of all voucher families—ranging from 37 to 40 percent for all White, Black and Hispanic voucher families to 65 percent of all voucher families from other racial and ethnic backgrounds.

Neighborhood Distress and Racial/Ethnic Composition

In the previous sections we compared the distribution of affordable rental housing and of housing choice voucher recipients in census tracts with varying levels of distress and with varying racial and ethnic mixes. In exhibit 4, we combine the two perspectives and examine the representation of affordable units and voucher holders in tracts with varying levels of distress and with varying racial and ethnic composition. Two findings stand out.

First, voucher holders are underrepresented in White and integrated census tracts with low levels of distress. For example, tracts with very-low levels of distress account for 22 percent of all affordable units in predominantly White neighborhoods, but they account for only 15 percent of all voucher families. In a similar way, tracts in the lowest distress category account for 6 percent of all affordable housing in integrated tracts but just 3 percent of all voucher holders.

The second, and starkest, finding is the almost complete absence of affordable housing or voucher holders in low-distress tracts in predominantly Black and Hispanic neighborhoods. Less than 1 percent of all affordable units and voucher holders in Black and Hispanic neighborhoods are in low- or very low-distress census tracts. On the other hand, 78 percent of all affordable units and

Exhibit 4

Distribution of Affordable Units, HCV Female-Headed Families With Children, and Census Tracts in MSAs by Tract Level of Distress and Racial/Ethnic Composition

Distress Quintile	Percent of…	Racial/Ethnic Composition of Tract (%)				
		75+ Percent White	50+ Percent Black	50+ Percent Hispanic	Integrated	Total
Very low	Affordable units	21.6	0.1	0.2	5.7	8.0
	HCV households	15.2	0.1	0.2	3.3	3.7
	Tracts	39.9	0.4	1.0	15.3	22.6
Low	Affordable units	28.4	0.7	0.7	14.6	13.8
	HCV households	24.7	0.7	0.9	10.7	8.4
	Tracts	28.2	2.2	2.3	20.4	20.0
Moderate	Affordable units	25.8	3.1	4.0	22.7	17.7
	HCV households	27.4	4.0	4.2	20.1	14.0
	Tracts	19.1	6.3	7.7	23.5	18.3
High	Affordable units	17.6	18.5	21.5	31.1	24.4
	HCV households	22.6	18.5	20.8	32.2	25.0
	Tracts	9.9	20.0	26.9	24.2	18.1
Very high	Affordable units	6.7	77.7	73.6	25.9	36.1
	HCV households	10.1	76.7	74.0	33.6	48.9
	Tracts	2.9	71.1	62.1	16.7	21.0
All tracts	Affordable units	100.0	100.0	100.0	100.0	100.0
	HCV households	100.0	100.0	100.0	100.0	100.0
	Tracts	100.0	100.0	100.0	100.0	100.0
All tracts	Affordable units	4,308,418	2,213,256	3,011,865	7,665,890	17,199,429
	Percent of total	25.0	12.9	17.5	44.6	100.0
	HCV households	100,952	187,470	108,285	264,845	661,552
	Percent of total	19.5	25.8	15.6	39.1	100.0
	Count of tracts	23,862	5,479	6,117	21,628	57,086
	Percent of total	48.0	8.0	9.0	35.0	100.0

HCV = housing choice voucher. MSA = metropolitan statistical area.

77 percent of all voucher families in predominantly Black neighborhoods are located in tracts with the very highest levels of distress. The same is true for 74 percent of all affordable units and voucher holders in predominantly Hispanic neighborhoods.

This huge imbalance in the distribution of affordable units and voucher units across tracts with varying levels of distress in Black and Hispanic neighborhoods is not specific to affordable and subsidized housing. It reflects a much more pervasive pattern. Of the 4,479 metropolitan-area census tracts where Black residents make up 50 percent or more of the population, only 22 (0.4 percent) are in the very-low-distress category, and only 120 (2.2 percent) are in the low-distress category. On the other hand, 71 percent of all predominantly Black census tracts in metropolitan areas fall in the top distress category. Of the 6,117 predominantly Hispanic census tracts in metropolitan areas, only 61 (1.0 percent) are in the lowest distress category and 141 (2.3 percent) are in the next highest group. Conversely, 62 percent of all Hispanic tracts are in the very high-distress category and 27 percent are in the high-distress group.

In other words, if a voucher holder resides in a predominantly Black or Hispanic census tract, he or she will almost invariably face high or very high levels of neighborhood distress. Integrated tracts, on the other hand, are distributed more evenly across the five distress categories. Of all integrated census tracts, 36 percent are in the two lowest distress categories and 41 percent are in the two highest categories.

Geographic Variations

The preceding analysis has been framed at the national level; however, housing markets operate at a regional or local scale. Therefore, the finding that voucher holders are underrepresented relative to the supply of affordable housing in neighborhoods with low levels of distress and overrepresented in high-distress neighborhoods may hold up to varying degrees across the country. Voucher holders may be more likely to reside in low-distress neighborhoods in some places than in others. In this section, we examine the intermetropolitan distribution of the percentage of voucher families residing in low- and very low-distress tracts—hereafter referred to as "low distress."

Exhibit 5 presents a scatter plot of metropolitan areas, with the Y-axis indicating the percent of voucher holders in low-distress census tracts and the X-axis population size of the metropolitan areas. The graph shows that the representation of voucher holders in low-distress tracts varies widely (from 0 to 94 percent) in metropolitan areas with populations of less than 1.5 million. The percentage of voucher holders in low-distress tracts is consistently lower within larger metropolitan areas. It varies from 2 to 42 percent in metropolitan areas of 1.5 to 4.5 million and from 3 to just 9 percent in metropolitan areas with populations of more than 4.5 million.

Exhibit 5

Percent of HCV Female-Headed Families With Children Locating in Low- or Very-Low-Distress Tracts Among MSAs by Population
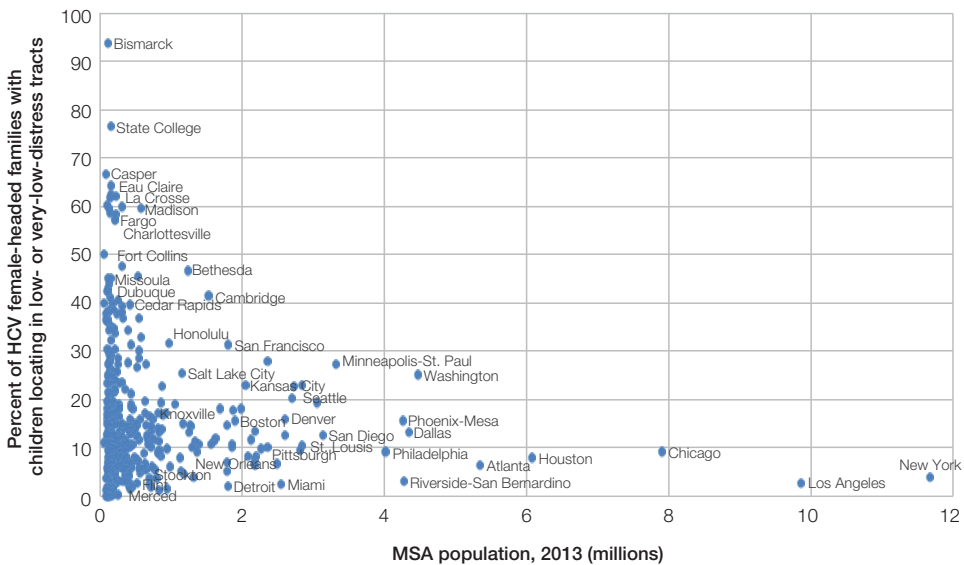
HCV = housing choice voucher. MSA = metropolitan statistical area.

We developed several regression models to further understand intermetropolitan variations in the presence of voucher holders in low-distress census tracts. The dependent variables in the analysis include all voucher families and all voucher families in each racial/ethnic group. The independent variables, as shown in exhibit 6, pertain to housing market conditions, demographic conditions, FMRs, and metropolitan area population size. Note that some of the variables are expressed in comparison of the low- and very-low-distress tracts with the surrounding metropolitan areas (for example, the difference between the rental vacancy rate in low- and very-low-distress tracts

Exhibit 6

Descriptive Statistics for Components of Models Explaining Variation in Percentage of HCV Female-Headed Families With Children Into Low- and Very-Low-Distress Tracts in MSAs, 2013

Variable	Minimum	Maximum	Mean	Standard Deviation	Expected Relationship
Dependent variables					
Percent of HCV female-headed families with children locating in low- or very-low-distress tracts					
Total	0.0	93.8	16.7	14.5	NA
Non-Hispanic White	0.0	91.8	22.2	15.7	NA
Non-Hispanic Black	0.0	94.1	14.0	15.1	NA
Non-Hispanic other	0.0	100.0	19.7	23.6	NA
Hispanic	0.0	100.0	16.8	18.0	NA
Independent variables					
MSA percent for low- or very-low-distress tracts					
Percent of total tracts	0.0	91.7	40.2	16.9	+
Rental vacancy rate	0.0	35.6	7.7	3.7	+
Difference in rental vacancy rate with MSA	– 11.4	23.6	– 1.2	2.5	+
Workers below poverty level using public transit	0.0	39.5	2.6	3.9	+
Difference poor workers using public transit with MSA	– 19.8	16.3	– 2.1	3.1	+
Housing units single-family	23.8	95.1	73.7	9.0	–
Difference single-family with MSA	– 40.9	32.4	8.4	5.9	–
Percent of households who rent	10.3	51.6	23.3	5.7	+
Difference renters with MSA	– 30.7	6.4	– 10.5	4.5	+
Percent population Black	0.1	28.5	4.9	5.3	+
Difference percent Black from MSA	– 34.6	2.0	– 5.6	6.3	+
Percent population Hispanic	0.5	89.6	7.7	10.2	+
Difference percent Hispanic from MSA	– 43.8	1.9	– 5.2	7.0	+
Difference percent HCV households Black with percent Black in low- and very-low-distress tracts	– 2.0	90.2	43.9	28.9	+
Difference percent HCV households Hispanic with percent Hispanic in low- and very-low-distress tracts	– 28.7	64.3	7.1	14.6	+
Percent of rental units less than the FMR in low-distress tracts	7.2	68.6	36.7	10.7	+
Difference percent of rental units below FMR in low-distress tracts from MSA	– 51.3	10.1	– 13.1	7.9	+
MSA population, 2013 (thousands)	55	11,680	681	1,187	–

FMR = Fair Market Rent. HCV = housing choice voucher. MSA = metropolitan statistical area. NA = not applicable.

and the rental vacancy rate in the metropolitan area); this difference is meant to reflect whether a particular characteristic is overrepresented or underrepresented in the low- and very-low-distress tracts relative to the broader region. Many of the independent variables are the same or similar to those that Pendall (2000) used in his study of voucher holder location patterns.

The most important variable in all the models is the percentage of low- and very low-distress tracts in the metropolitan area. It was not surprising to find that the higher the percentage of low- or very low-distress tracts in a metropolitan area, the higher the percentage of voucher holders in these tracts. Conversely, metropolitan areas with few low-distress tracts have fewer voucher holders located in these tracts.

Other market-related variables that were also significant in one or more models include the percentage of rental housing, the percentage of single-family homes, and the tract-MSA difference in the percentage of low-income workers using public transit. The percentage of renter households was positively associated with the percentage of voucher holders in low-distress tracts, and this variable was significant (at the 0.01 level) in two of the five models (all voucher families and Black voucher families). The percentage of single-family housing in low-distress tracts correlates nega-tively with the percentage of voucher holders, but this variable is significant in only one model (all voucher families). These results suggest that HCV households make greater entry into low-distress tracts where rental units, especially multi-multifamily rental, units, are more prevalent.

The only other variable in this category to show significance was the tract-MSA difference in the percentage of workers in poverty who use public transit. Tracts where the incidence of poor work-ers using public transit exceeded the corresponding percentage for their metropolitan area were positively correlated with the percentage of voucher families in low-distress tracts, but this variable was only significant (and weakly so) in only one model (Hispanic voucher families).

Among the demographic variables, the percentage of Black residents in the population of low-distress tracts showed the strongest effect. The higher the percentage of Black residents, the greater the percentage of voucher families in low-distress tracts. This finding was significant in three models (all, White, and Black voucher families). The coefficient is highest for Black voucher families. In addition to the percentage of Black voucher families in tract population, the difference in the percentage of voucher recipients who are Black and percentage of Black residents in low- and very-low-distress tracts was significant in four of the five models (all except other voucher families). This result aligns with the work of Pendall (2000), suggesting that Black voucher holders will gain greater entry into low-distress tracts where the racial composition of the HCV population more closely corresponds to the racial composition of the population in that market. In a similar way, the difference in the percentage of HCV households who are Hispanic with and the percent-age of Hispanic residents in low- and very-low-distress tracts was also significant in the same four models, even though the percentage of Hispanics residents was not.

Metropolitan population size is significant in three models (all, White, and Black voucher families), but the coefficients are very low. Although exhibit 5 suggests that low-distress tracts in smaller metropolitan areas show the most variation in the percentage of voucher holders, it appears that much of the relationship between metropolitan area size and the presence of voucher holders in low-distress tracts is explained by other variables in the models.

Finally, exhibit 7 shows that the availability of affordable housing, as measured by percentage of units costing no more than the FMR, is not significant in any of the models. Also not significant is the *difference* between the percentage of FMR units in low-distress tracts and the percentage in the metropolitan area as whole. From a policy perspective, this finding suggests that increases in FMRs or the use of Small Area FMRs, whereby FMRs are increased in more expensive neighborhoods and reduced in less expensive ones,[4] are not by themselves likely to help voucher families move into low-distress neighborhoods.

Conclusions and Policy Implications

This analysis of the geography of housing choice voucher recipients makes several contributions toward our understanding of the HCV program's ability to help low-income households locate in neighborhoods with low levels of distress. This study builds on previous ones that have documented that the HCV program has not delivered on its potential to help low-income families avoid neighborhoods that are racially segregated and that often have high rates of poverty (Galvez, 2011; Newman and Schnare, 1997; Pendall, 2000). Whereas previous studies group all voucher recipients together, our study examines the residential locations of White, Black and Hispanic voucher holders separately. Also, whereas most previous studies of the residential locations of voucher holders focus on neighborhood poverty rates, we use a broader index of neighborhood distress that combines poverty with four other characteristics of neighborhood residents. As shown in exhibit 1, poverty does not capture all aspects of distress, and use of a multiple-variable measure may more effectively capture differences in neighborhood quality.[5]

Two findings stand out. The first and most important finding is the almost complete absence of predominantly Black and Hispanic neighborhoods with low or very-low levels of distress. This finding means that if a voucher holder wishes to live in a low-distress neighborhood, he or she must choose one that is either predominantly White or integrated. At present, only about 8 percent of all Black and Hispanic voucher families reside in predominantly White neighborhoods, and 38 to 40 percent live in integrated neighborhoods (see exhibit 3).

It is worth pointing out that in the few instances when Black and Hispanic voucher families do reside in predominantly White neighborhoods they are *more likely* than White voucher families to live in tracts with low levels of distress. For example, although less than 13 percent of all White voucher families in predominantly White census tracts live in very-low-distress tracts, the

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[4] As of August 2016, Small Area FMRs apply in the Dallas-Fort Worth-Arlington, TX MSA and in five additional public housing authorities that participate in HUD's Small Area FMR Demonstration program (Chattanooga, Tennessee; Cook County, Illinois; Laredo, Texas; Long Beach, California; and Mamaroneck, New York). "Final Fair Market Rents for the *Housing Choice Voucher Program for Small Area Fair Market Rent Demonstration Program Participants: Fiscal Year 2013," Federal Register* 78 (192) October 3, 2013: 61668–61742. In June 2016, HUD issued a Notice of Proposed Rulemaking to allow use of Small Area FMRs in selected metropolitan areas where there is wide variance in rents and voucher holders are concentrated in high-poverty neighborhoods. See "Establishing a More Effective Fair Market Rent System; Using Small Area Fair Market Rents in Housing Choice Voucher Program Instead of the Current 50th Percentile FMRs," *Federal Register* 81 (116) June 16, 2016: 39218–39234. The Comment period for the proposed rule ended on August 15, 2016. At the time of the issuance of the proposed rule, 31 metropolitan areas met HUD's criteria for the application of Small Area FMRs.

[5] This is not to say that our index could not be improved; it may be possible, depending on data availability, to add or substitute variables such as school quality (measured by test scores) and crime.

Exhibit 7

Ordinary Least Squares Models Explaining Variation in the Percent of HCV Families in Low- and Very-Low-Distress Tracts in MSAs, 2013

Independent Variable	Dependent Variable: Percent of Female-Headed HCV Families Locating in Low- and Very-Low-Distress Tract									
	Model 1: Total		Model 2: White		Model 3: Black		Model 4: Other Race		Model 5: Hispanic	
	Coef-ficient	Signifi-cance	Coef-ficient	Signifi-cance	Coef-ficient	Signifi-cance	Coef-ficient	Signifi-cance	Coef-ficient	Signifi-cance
MSA percent of low- or very-low-distress tracts										
Percent of total tracts	0.589**		0.693**		0.592**		0.429**		0.660**	
Rental vacancy rate	– 0.172		– 0.132		– 0.081		– 0.071		0.220	
Difference in rental vacancy rate with MSA	0.022		0.281		– 0.354		0.356		– 0.451	
Workers below poverty level using public transit	– 0.182		0.082		– 0.257		– 0.016		– 0.107	
Difference poor workers using public transit with MSA	0.269		– 0.177		0.344		0.504		0.802*	
Housing units single-family	– 0.161*		– 0.085		– 0.192		– 0.361		– 0.135	
Difference single-family with MSA	– 0.032		– 0.019		– 0.188		0.274		0.045	
Percent of households who rent	0.308**		0.231		0.376**		– 0.243		0.355	
Difference renters with MSA	– 0.053		0.127		– 0.282		0.462		0.153	
Demographic conditions										
Percent population Black in low- or very-low-distress tracts	0.410**		0.334*		0.614**		0.182		0.192	
Difference percent Black from MSA	0.077		– 0.182		0.122		– 0.151		– 0.309	
Percent population Hispanic in low- or very-low-distress tracts	0.023		0.007		0.035		– 0.115		0.085	
Difference percent Hispanic from MSA	– 0.049		– 0.115		– 0.160		– 0.208		– 0.078	
Difference percent HCV households Black with percent Black in low- and very-low-distress tracts	– 0.179**		– 0.093**		– 0.151**		– 0.059		– 0.154**	
Difference percent HCV households Hispanic with percent Hispanic in low- and very-low-distress tracts	– 0.278**		– 0.179**		– 0.235**		– 0.080		– 0.332**	
Fair Market Rents										
Percent of rental units less than the FMR in low-distress tracts	– 0.010		– 0.019		0.070		0.209		0.085	
Difference percent of rental units below FMR in low-distress tracts from MSA	0.143		0.205		0.060		– 0.140		– 0.084	
MSA size										
MSA population (thousands), 2013	– 0.001**		– 0.001*		– 0.001*		– 0.001		– 0.001	
Constant	10.790		3.827		– 0.111		31.662		– 5.033	
R square	0.675		0.614		0.513		0.093		0.405	
Number of cases	381		381		379		337		370	

FMR = Fair Market Rent. HCV = housing choice voucher. MSA = metropolitan statistical area.

* = significant at 0.05. ** = significant at 0.01.

corresponding figures for Black and Hispanic voucher holders in predominantly White tracts are 18 and 16 percent, respectively. Conversely, again focusing on predominantly White census tracts, 36 percent of all White voucher holders reside in tracts with high or very-high levels of distress compared with 29 percent of all Black voucher holders and 30 percent of all Hispanic voucher holders residing in these predominantly White neighborhoods (see exhibit 8).

The second finding is that voucher families are underrepresented relative to the availability of affordable housing in low-distress neighborhoods. This finding is especially true of Black and Hispanic voucher families but also for White voucher holders. A more proportional distribution of voucher holders would enable a large number of voucher holders to move out of highly distressed neighborhoods. If, for example, the percentage of nonelderly, nondisabled Black voucher families in each distress category corresponded exactly with the percentage of affordable rental housing, the number of Black voucher holders in very-low-distress tracts in metropolitan areas would increase by 180 percent, from 15,185 to 44,508; the number in low-distress tracts would increase by 118 percent, from 38,021 to 81,579. Meanwhile, the number of Black voucher holders in very-high distress tracts would decline by 38 percent, from 317,222 to 194,634.

Although increases in the availability of affordable housing in low-distress neighborhoods may be necessary to improve residential options for voucher holders, it probably will not be sufficient, especially for Black and Hispanic voucher holders. As shown above (see exhibit 7), the availability of housing in low-distress tracts that cost less than FMR (and therefore eligible for voucher hold-ers) had no significant effect on intermetropolitan variations in the percentage of voucher holders in these low-distress tracts; all else equal, MSAs with relatively large percentages of affordable units in low-distress tracts did no better than MSAs with small percentages of affordable units in attracting minority voucher holders to these low-distress neighborhoods. As discussed previously, this suggests that policies aimed at increasing FMRs, or adopting Small Area FMRs,[6] are unlikely by themselves to succeed in attracting Black or Hispanic voucher holders to low-distress neighbor-hoods. To do so, policymakers will need to address racial barriers as well.

Exhibit 8

Average Percent of HCV Female-Headed Families With Children in MSAs by Race/Ethnicity by Tract Level of Distress in Predominantly White Tracts

Distress Quintile	Affordable Units (%)	HCV Female-Headed Households With Children in Predominantly White Tracts (%)				
		Total	**White**	**Black**	**Hispanic**	**Other**
Very low	21.6	15.2	12.8	18.3	15.7	17.0
Low	28.4	24.7	23.0	26.1	26.4	28.7
Moderate	25.8	27.4	28.1	26.2	28.3	27.2
High	17.6	22.6	24.7	20.3	20.7	19.8
Very high	6.7	10.1	11.4	9.1	8.9	7.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

HCV = housing choice voucher. MSA = metropolitan statistical area.

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[6] "Final Fair Market Rents for the Housing Choice Voucher Program for Small Area Fair Market Rent Demonstration Program Participants: Fiscal Year 2013," *Federal Register* 78 (192) October 3, 2013: 61668–61742.

These findings are especially germane to HUD's Final Rule for Affirmatively Furthering Fair Housing.[7] Issued in July 2015, the final rule replaces the government's previous requirement that housing authorities and state and local governments analyze impediments to fair housing with a new approach that requires them to state how their housing and community development programs and investments promote fair housing. To aid in this effort, HUD now provides all program participants (that is, governmental units receiving HUD funds) "with local and regional data on integrated and segregated living patterns, racially or ethnically concentrated areas of poverty, the location of certain publicly supported housing, access to opportunity afforded by key community assets, and disproportionate housing needs based on classes protected by the Fair Housing Act." In providing this data, HUD expects participants [to be]—

> …better able to evaluate their present environment to assess fair housing issues such as segregation, conditions that restrict fair housing choice, and disparities in access to housing and opportunity, identify the factors that primarily contribute to the creation or perpetuation of fair housing issues, and establish fair housing priorities and goals.[8]

Some of the specific topics program participants must examine include—

• Racial and ethnic segregation.

• Racially/ethnically concentrated areas of poverty (R/ECAPs).

• Disparities in access to opportunity.

In each category, program participants must consider the location and type of affordable housing as a contributing factor. This study shows that the HCV program does very little to reduce racial and ethnic segregation or to help voucher holders avoid racially defined areas of concentrated poverty, because minority voucher holders are disproportionately located in predominantly minority neighborhoods with high levels of distress. Regarding disparities in access to opportunity, program participants must, among other things, assess how their policies affect the ability of Black and Hispanic residents and members of other protected classes to access "low poverty areas." The HCV program falls short here as well; as noted previously, the percentage of voucher holders, especially minority voucher holders, in low-distress tracts is less than the percentage of eligible rental units.

In developing plans for affirmatively furthering fair housing, administrators of the HCV program should consider policies that enable voucher recipients to secure housing in neighborhoods with low levels of distress. In doing so, governments will need to devise ways of helping voucher holders access housing in either integrated or predominantly White neighborhoods.[9]

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[7] "Affirmatively Furthering Fair Housing; Final Rule," *Federal Register* 80 (116) July 16, 2015. http://www.gpo.gov/fdsys/pkg/FR-2015-07-16/pdf/2015-17032.pdf.

[8] "Affirmatively Furthering Fair Housing; Final Rule," *Federal Register* 80 (116) July 16, 2015: 42272. http://www.gpo.gov/fdsys/pkg/FR-2015-07-16/pdf/2015-17032.pdf.

[9] For an excellent discussion of potential strategies and policy reforms to help voucher holders access low-distress neighborhoods, see DeLuca, Garboden, and Rosenblatt (2013).

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References

Briggs, Xavier de Sousa, Susan J. Popkin, and John Goering. 2010. *Moving to Opportunity: The Story of an American Experiment to Fight Ghetto Poverty*. New York: Oxford University Press.

Briggs, Xavier de Sousa, and Margery Austin Turner. 2006. "Assisted Housing Mobility and the Success of Low-Income Minority Families: Lessons for Policy, Practice, and Future Research," *Journal of Law and Social Policy* 1 (1): 24–61.

Chetty, Raj, Nathaniel Hendren, and Lawrence F. Katz. 2015. The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment. Unpublished paper. http://www.equality-of-opportunity.org/images/mto_paper.pdf.

DeLuca, Stefanie, Philip M.E. Garboden, and Peter Rosenblatt. 2013. "Segregating Shelter: How Housing Policies Shape the Residential Locations of Low-Income Minority Families," *Annals of the American Academy of Political and Social Science* 647 (1): 268–299.

Deng, Lan. 2005. "The Cost-Effectiveness of the Low-Income Housing Tax Credit Relative to Vouchers: Evidence from Six Metropolitan Areas," *Housing Policy Debate* 16 (3/4): 469–511.

Devine, Deborah J., Robert W. Gray, Lester Rubin, and Lydia B. Taghavi. 2003. *Housing Choice Voucher Location Patterns: Implications for Participant and Neighborhood Welfare*. Washington, DC: U.S. Department of Housing and Urban Development, Office of Policy Development and Research, Division of Program Monitoring and Research.

Galvez, Martha. 2011. "Defining 'Choice' in the Housing Choice Voucher Program: The Role of Market Constraints and Household Preferences in Location Outcomes." Ph.D. diss., New York University.

General Accounting Office (GAO). 2002. *Federal Housing Assistance: Comparing the Characteristics and Costs of Housing Programs*. GAO-02-76. Washington, DC: General Accounting Office.

Imbroscio, David. 2012. "Beyond Mobility: The Limits of Liberal Urban Policy," *Journal of Urban Affairs* 34 (1): 1–20.

Kasarda, John D. 1993. "Inner-City Concentrated Poverty and Neighborhood Distress: 1970 to 1990," *Housing Policy Debate* 4 (3): 253–302.

Kingsley, G. Thomas, Jennifer Johnson, and Kathryn L.S. Petit. 2003. "Patterns of Section 8 Relocation in the Hope VI Program," *Journal of Urban Affairs* 25 (4): 427–447.

Ludwig, Jens, Greg 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 (September): 1505–1510.

Ludwig, Jens, Helen Ladd, and Greg Duncan. 2001. "Urban Poverty and Educational Outcomes." In *Brookings-Wharton Papers on Urban Affairs*, edited by William G. Gale and Janet R. Pack. Washington, DC: The Brookings Institution: 147–201.

Ludwig, Jens, Lisa Sanbonmatsu, Lisa A. Gennetian, Emma Adam, Greg Duncan, Lawrence Katz, Ronald Kessler, Jeffrey Kling, Stacy T. Lindau, Robert C. Whitaker, Thomas W. McDade. 2011. "Neighborhoods, Obesity, and Diabetes: A Randomized Social Experiment," *New England Journal of Medicine* 355 (October 20): 1509–1919.

McClure, Kirk. 2010. "The Prospects for Guiding Housing Choice Voucher Households to High-Opportunity Neighborhoods," *Cityscape* 12 (3): 101–122.

McClure, Kirk. 2005. "Rent Burden in the Housing Choice Voucher Program," *Cityscape* 8 (2): 5–20.

McClure, Kirk, Alex Schwartz, and Lydia B. Taghavi. 2015. "Housing Choice Voucher Location Patterns a Decade Later," *Housing Policy Debate* 25 (2): 215–233.

Newman, Sandra, and Ann Schnare. 1997. "'… And a Suitable Living Environment': The Failure of Housing Programs To Deliver on Neighborhood Quality," *Housing Policy Debate* 8 (4): 703–741.

Pendall, Rolf. 2000. "Why Voucher and Certificate Users Live in Distressed Neighborhoods," *Housing Policy Debate* 11 (4): 881–910.

Rosenbaum, James. 2012. "Gautreaux Program." In *The Encyclopedia of Housing*, edited by Andrew T. Carswell. 2nd ed. Los Angeles: SAGE Publications: 239–240.

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. huduser.org/publications/pdf/MTOFHD_fullreport_v2.pdf.

Schwartz, Alex. 2014. *Housing Policy in the United States*. 3rd ed. New York: Routledge.

Turner, Margery Austin, Austin Nichols, and Jennifer Comey, with Kaitlin Franks and David Price. 2012. *Benefits of Living in High-Opportunity Neighborhoods: Insights from the Moving to Opportunity Demonstration.* Washington, DC: Urban Institute. http://www.urban.org/research/publication/ benefits-living-high-opportunity-neighborhoods/view/full_report.

Wang, Xinhao, and David P. Varady. 2005. "Using Hot-Spot Analysis to Study the Clustering of Section 8 Housing Voucher Families," *Housing Studies* 20 (1): 29–45.