



Spatial Mismatch and Federally Supported Rental Housing

Do Public Housing and Vouchers Help People Live Closer to Available Jobs?

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In many places in the United States, people with low incomes live far from available jobs,¹ and employers cannot find workers to fill open positions.² This gap between where jobs are located and where job seekers live is referred to as “spatial mismatch,” and it can harm both employers and potential workers. Employers may have positions that go unfilled, and potential workers may be discouraged from seeking available jobs by commuting costs that outweigh take-home pay. Spatial mismatch may also have broader social impacts, including increased congestion and vehicular emissions.

Rental assistance programs, such as public housing and housing vouchers, could help people live closer to available jobs and thus reduce spatial mismatch. However, the historical placement of public housing far from opportunities (Turner, Popkin, and Rawlings 2008) and discrimination against families with housing vouchers (Cunningham et al. 2018) might mean that recipients of federal rental assistance live farther from job opportunities than they would without that assistance. This question is particularly relevant today as policymakers consider attaching work requirements to the receipt of housing assistance (Levy, Edmonds, and Simington 2018) and grapple with how to move people closer to opportunity (Sard et al. 2018).

To understand the relationship between federal rental assistance programs and spatial mismatch, we analyze data from Snagajob, the largest online marketplace for hourly jobs in the US, and data from the US Department of Housing and Urban Development (HUD) on the location of public housing and assisted households. Snagajob data capture a large number of people who are seeking low-wage jobs.

Across the 16 metropolitan statistical areas (MSAs) that we examine, Snagajob data represent 13 percent of all new hires in the latest year of the data, as measured by the Quarterly Workforce Indicators, a longitudinal dataset of economic indicators from the US Census Bureau. Snagajob data give us a unique view of the labor force because they reflect hourly, often minimum-wage jobs, which cannot always be found in other jobs data. The jobs are predominantly full time, and most are restaurant, retail, or customer service positions. The applicants in the system generally have only a high school diploma and are evenly split by gender. Unlike data from other job datasets, these data include all job postings and all applicants (rather than only jobs that have been filled) and are available at the zip code level.

We use Snagajob applicant and posting data from 2015 to calculate a measure of spatial mismatch—specifically, the number of job seekers minus the number of job postings within a reasonable commuting distance of each zip code. We define reasonable commuting distance to be a 6.3-mile radius around each zip code’s population-weighted center because 6.3 miles is the average distance (after removing outliers) in the Snagajob data between job seekers’ home zip codes and the zip codes in which they apply to jobs. We calculate spatial mismatch for the 16 MSAs, which were selected to create a diverse group of places based on geography, population growth, and labor market conditions.

We then overlay this measure of spatial mismatch with publicly available data on the locations of assisted households to compare spatial mismatch for households living in public or assisted housing with households that have extremely low incomes and are not in public or assisted housing. We focus specifically on households that receive assistance through the public housing, Housing Choice Voucher (HCV), moderate rehabilitation,³ and project-based Section 8 rental assistance (PBRA) programs. We define extremely low-income households as households whose incomes are lower than 30 percent of the area median income (AMI) for a four-person household. To approximate unassisted households that are similar to assisted households, we add up all households that are extremely low-income and subtract from that the number of assisted households within each zip code. We assign each household a spatial mismatch level based on the mismatch of the zip code in which they live. We then calculate averages for each group.

We find that spatial mismatch is worse for assisted households than for similar unassisted households, suggesting that public and assisted housing does not, on average, help families live closer to net job opportunities. In fact, the average assisted household is surrounded by 6,032 more nearby Snagajob seekers than Snagajob postings, compared with 3,056 more for unassisted, extremely low-income households—nearly double the amount. Within assistance types, households in public housing fare the worst; they have an average of over 8,000 more job seekers than job postings within a reasonable commuting distance, followed by households with HCVs, which have almost 6,000 more nearby job seekers than postings. Households in the PBRA and moderate rehabilitation programs fare the best, with just under 4,500 more job seekers than postings within a reasonable commuting radius.

Results vary across MSAs, though, with assisted households^a in some regions faring better than those in other regions. For instance, assisted households in the Nashville, Minneapolis, Boston, and Seattle MSAs have lower levels of spatial mismatch than unassisted, extremely low-income households do, suggesting that assisted households in those regions have greater location-based access to job opportunities. But in the rest of the MSAs we studied, assisted households have, on average, higher spatial mismatch than unassisted, extremely low-income households do. New York, Chicago, and Atlanta have the largest gaps between assisted households and unassisted, extremely low-income households.

These results suggest that households that qualify for housing assistance may lack sufficient choice in where to live in terms of proximity to available jobs. Policymakers and local leaders could help solve this problem by locating assisted housing (in particular, project-based housing, considering constraints around relocating public housing) close to areas with excess jobs, enacting and enforcing antidiscrimination laws for voucher households, providing deeper subsidies for households living in higher-cost neighborhoods, partnering with employers to invest in affordable housing and help link assisted households to jobs, and investing in transit. Although neighborhood quality is multidimensional (Gourevitch, Greene, and Pendall 2018) and housing assistance provides a host of other benefits (including reduced rent burden and increased stability), proximity to net jobs does not appear to be one of them in most MSAs we studied.

Spatial Mismatch and Subsidized Housing

John Kain initially defined the term “spatial mismatch” within a racial and housing framework, presenting a three-part hypothesis (Kain 1968). First, Kain proposed that racially driven housing segregation adversely affects African Americans’ employment rates. Second, he hypothesized that spatial mismatch decreases African Americans’ opportunities to obtain jobs, in part because of the dearth of jobs around their places of residence. Finally, he suggested that the postwar shift in employment from cities to suburbs drew employment away from African Americans’ places of residence, further exacerbating the effects of the first two parts of his hypothesis. Although some research since Kain’s paper has suggested that his spatial mismatch theory might be incorrect (notably Offner and Saks 1971), a substantial body of scholarship supports the theory and expands it to more explicitly include the impact of theories of racial prejudice on the mismatch phenomenon (Stoll and Covington 2012).

Gobillon, Selod, and Zenou (2007) outline seven mechanisms through which spatial mismatch operates. First, people may opt not to take jobs that require a long commute. Second, people have relatively fewer opportunities to learn about jobs that are far from their place of residence. Third, people may spend less time searching for jobs that are far from where they live. Fourth, people may

^a For the purposes of brevity, we use “assisted households” to refer both to those living in public housing and those participating in the other housing programs included in our study: the Housing Choice Voucher, moderate rehabilitation, and project-based Section 8 rental assistance programs.

experience a higher cost when searching for jobs that are far from their residence (for example, by having a long commute or by paying more for gas to get to and from interviews). Fifth, employers may discriminate against applicants during the hiring process based on the locations of applicants' residences. Sixth, because long commutes may make workers less productive, employers may opt to pay workers who commute long distances less than workers who live near their place of work. Seventh, employers may believe their customers would prefer to interact with white or affluent workers than with workers of color or poor workers.

Although spatial mismatch theory was initially developed through the lens of racial discrimination, the mechanisms are also relevant to households with low incomes. Prior research has shown that public and assisted housing has a long history of being located in poorer neighborhoods that afford residents fewer opportunities for high-quality education, amenities, and public safety (Turner, Popkin, Rawlings 2008; McClure, Schwartz, and Taghavi 2015). And paired-testing studies have shown that many landlords refuse to accept vouchers (Cunningham et al. 2018). It is also important to note that the majority of people who live in subsidized housing are people of color (Turner, Popkin, and Rawlings 2008). HUD reports that 42 percent of assisted households in 2015 were Black non-Hispanic and 18 percent were Hispanic.⁴

Research on public and assisted housing and spatial mismatch focuses on two areas of inquiry: urban public housing's proximity to centers of employment and HCV holders' opportunity to move to areas with greater access to employment and better educational opportunities. Some studies have found that public housing is generally in central-city areas near downtown (Crump 2002; Wilson 2012). However, the evidence is mixed. A 2014 study on housing and proximity to jobs considered both distance to employment centers and access to transportation, particularly public transit (Pendall et al. 2014). The study found that the neighborhoods where HCV holders without cars live offer access to larger numbers of jobs than the neighborhoods where HCV holders with cars live. Voucher holders with cars compensate for this, however, by living in neighborhoods where fewer low-income people compete for available jobs. Lens, McClure, and Mast (2019) found that although location advantages may be achieved with help from housing vouchers, proximity to jobs does not seem to be one of those advantages.

Evaluations of programs and policies meant to move HCV holders into higher-opportunity areas (including Chetty, Hendren, and Katz 2016 and HUD 2019) have found that where families who use HCVs live largely determines the quality of their children's schools, the safety of the streets, and their neighborhood characteristics. In related research, Blumenberg and Pierce (2014) show that employment outcomes are sensitive to the transportation options available. Housing location has also been shown to affect adults' access to jobs, transportation costs to work, access to fresh and reasonably priced food and other basic goods and services, and the distance between child care and jobs (Sard et al. 2018).

Kneebone (2019) explored this phenomenon by studying employment and potential barriers in the different kinds of neighborhoods and communities in which subsidized households live. She found that people in HUD-subsidized housing are more likely than other renters to be located in parts of the

country with higher-than-average unemployment rates, that the average subsidized household is located in a neighborhood where most adults are working but are likely to be less educated and earn lower wages than average, and that subsidized households in cities are located near more jobs than their suburban or rural counterparts. However, she also found that these jobs are more likely to require a college degree, that workers outside the urban core travel farther and are more reliant on cars to get to work, and that people in subsidized households face barriers to car access.

Assisted Households Live in Neighborhoods with High Levels of Spatial Mismatch

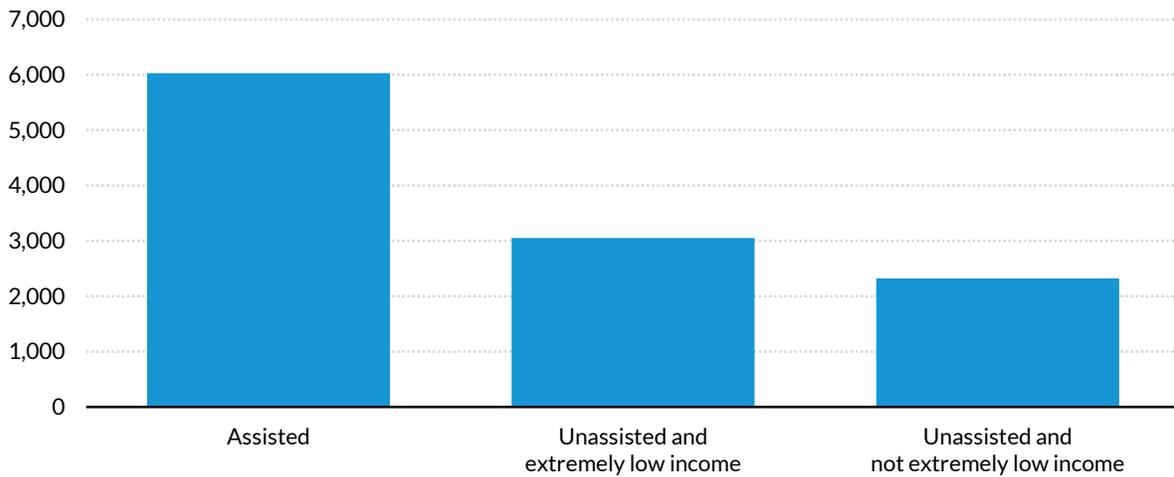
To examine how assisted households fare on spatial mismatch, we compare their average level of mismatch (defined as total job seekers minus job postings within a reasonable commuting distance of each household's population-weighted zip code centroid) with that of unassisted households that have similar incomes. To approximate unassisted households that are similar to assisted households, we add up all households that are extremely low income (defined as those with incomes below 30 percent of AMI) and subtract the number of assisted households within each zip code.⁵

The average assisted household faces worse spatial mismatch than the average unassisted household. The average assisted household lives in a zip code with 6,032 more Snagajob applicants than postings within a reasonable commuting distance (figure 1). This is higher than the average spatial mismatch of households that are unassisted and extremely low income, which is 3,056 more job seekers than jobs within the average commuting distance. All other households, or those that are unassisted and not extremely low income, also have more job seekers than postings on average within a reasonable distance, but they fare better than the other two groups, with just 2,325 more job seekers than jobs nearby their homes.

FIGURE 1

Spatial Mismatch for Assisted and Unassisted Households

Average of Snagajob applicants minus job postings within 6.3 miles



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Sources: Urban Institute analysis of 2015 Snagajob data, 2015 US Department of Housing and Urban Development Picture of Subsidized Households data, and 2013–17 American Community Survey five-year estimates.

Notes: Spatial mismatch is the number of Snagajob applicants minus the number of Snagajob postings within a 6.3-mile radius of each zip code’s population-weighted centroid. Assisted households are those that receive assistance through the public housing, Housing Choice Voucher, moderate rehabilitation, and project-based Section 8 rental assistance programs. Each household was assigned the spatial mismatch level of its zip code. Extremely low-income households are those that earn less than 30 percent of area median income.

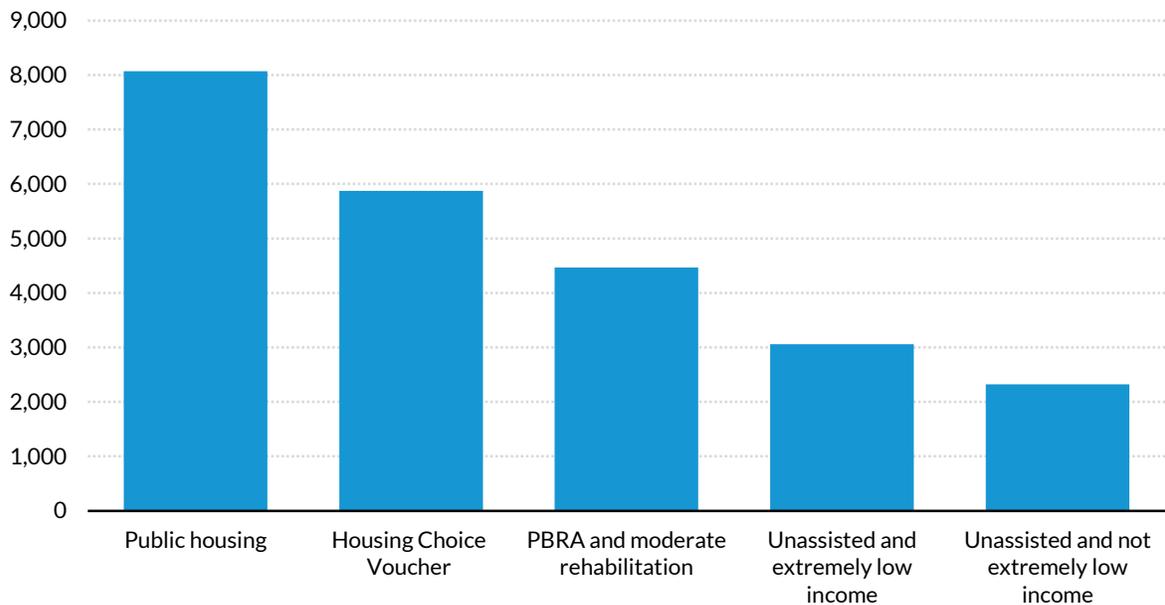
Within assisted housing, all forms of assistance fare worse in net job access than unassisted households, with public housing tenants facing the widest gap (figure 2). Public housing tenants see more than double the jobs deficit of households that are unassisted and extremely low income and more than three times that of all other unassisted households. Our analysis combines two project-based programs: PBRA and moderate rehabilitation. Households assisted through these programs fare the best of the assisted households, but they still fare worse than households that are unassisted and extremely low income.

Although HCV holders have more flexibility in where to live compared with public housing residents and thus can live closer to where net job opportunities exist, they face almost double the deficit that households who are unassisted and extremely low income encounter. This may be partially because of discrimination against voucher holders by landlords (Cunningham et al. 2018).

FIGURE 2

Spatial Mismatch by Assistance Type

Average of Snagajob applicants minus job postings within 6.3 miles



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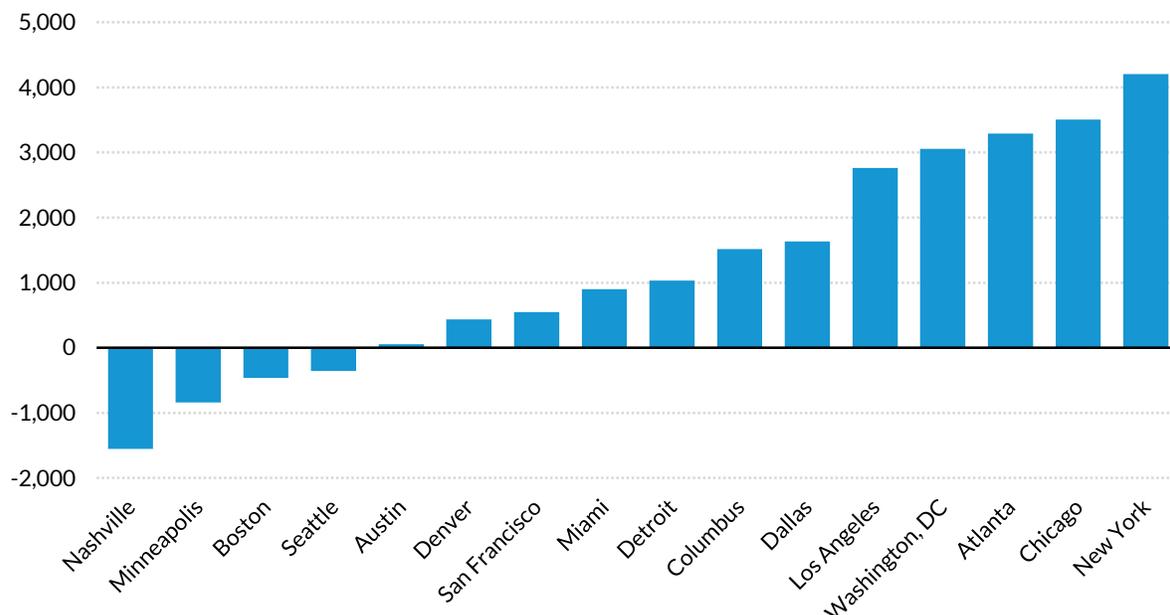
Sources: Urban Institute analysis of 2015 Snagajob data, 2015 US Department of Housing and Urban Development Picture of Subsidized Households data, and 2013–17 American Community Survey five-year estimates.

Notes: Spatial mismatch is the number of Snagajob applicants minus the number of Snagajob postings within a 6.3-mile radius of each zip code’s population-weighted centroid. Each household was assigned the spatial mismatch level of its zip code. PBRA = project-based Section 8 rental assistance. Extremely low-income households are those that earn less than 30 percent of area median income.

Trends in proximity to jobs for assisted households compared with unassisted, extremely low-income households are not uniform across the US (figure 3). In the Nashville, Minneapolis, Boston, and Seattle MSAs, assisted households fare better on spatial access to jobs than households that are unassisted and extremely low income do. In the other MSAs in the analysis, the areas where assisted households live have worse spatial mismatch than the areas where unassisted, extremely low-income households live, with Austin close to parity and New York faring the worst. The Chicago, Atlanta, Washington, DC, and Los Angeles MSAs also have much larger spatial mismatch for assisted households than for unassisted, extremely low-income households.

FIGURE 3

Spatial Mismatch of Assisted Households Minus That of Households That Are Unassisted and Extremely Low Income, by MSA



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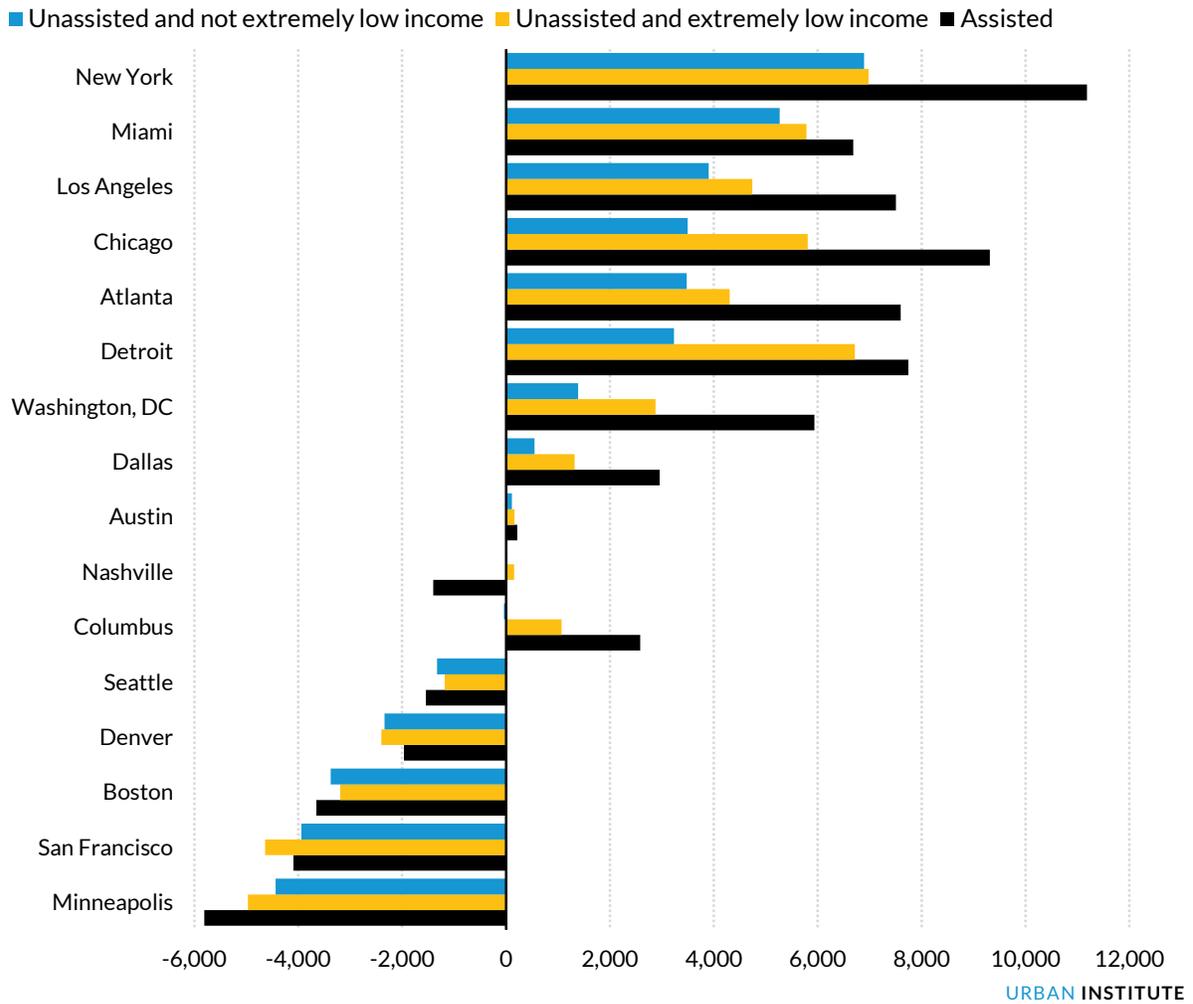
Sources: Urban Institute analysis of 2015 Snagajob data, 2015 US Department of Housing and Urban Development Picture of Subsidized Households data, and 2013–17 American Community Survey five-year estimates.

Notes: Spatial mismatch is the number of Snagajob applicants minus the number of Snagajob postings within a 6.3-mile radius of each zip code’s population-weighted centroid. Assisted households are those that receive assistance through the public housing, Housing Choice Voucher, moderate rehabilitation, and project-based Section 8 rental assistance programs. Each household was assigned the spatial mismatch level of its zip code. Extremely low-income households are those that earn less than 30 percent of area median income.

To see these findings as part of the larger picture of mismatch in each MSA, figure 4 shows overall mismatch for assisted households, households that are unassisted and extremely low income, and households that are unassisted and not extremely low income within each metro region. Eight of the 16 MSAs show significantly more job seekers than postings for all three groups, three are close to parity (particularly for unassisted and not extremely low income, which is the largest group in terms of population), and five have more hourly job opportunities than job seekers. Among the first eight are six of the nation’s largest MSAs: New York, Los Angeles, Chicago, Dallas, Washington, DC, and Miami. Across all eight, assisted households fared worse than the other groups, with New York, Chicago, and Atlanta showing the widest differences between jobs available to assisted households and unassisted, extremely low-income households. The Columbus, Nashville, and Austin MSAs show job seekers and postings closer to parity. Five MSAs— Minneapolis, San Francisco, Boston, Denver, and Seattle—have more job postings than job applicants across all three groups. Assisted households in these MSAs have, on average, between 5,809 and 1,539 more job postings than job seekers at a reasonable commute distance.

FIGURE 4

Spatial Mismatch for Assisted and Unassisted Households, by MSA



Sources: Urban Institute analysis of 2015 Snagajob data, 2015 US Department of Housing and Urban Development Picture of Subsidized Households data, and 2013–17 American Community Survey five-year estimates.

Notes: Spatial mismatch is the number of Snagajob applicants minus the number of Snagajob postings within a 6.3-mile radius of each zip code’s population-weighted centroid. Assisted households are those that receive assistance through the public housing, Housing Choice Voucher, moderate rehabilitation, and project-based Section 8 rental assistance programs. Each household was assigned the spatial mismatch level of its zip code. Extremely low-income households are those that earn less than 30 percent of area median income.



Greenleaf Gardens public housing complex in Washington, DC, across the street from the Valo luxury apartments. Photo by Prasanna Rajasekaran.

Case Studies

To better understand how the dynamics of spatial mismatch play out within regions, we selected four MSAs to examine in more detail: Atlanta, Chicago, Seattle, and Washington, DC. We selected these four MSAs to reflect different regional dynamics and types of places across the US. Atlanta is a quickly growing and sprawling region; Chicago has had a long and sometimes fraught history with assisted housing and wide disparities in job access within the region; Seattle is both growing quickly and building housing at a relatively rapid clip; and Washington, DC, is a racially segregated city with more than one job center.

Atlanta

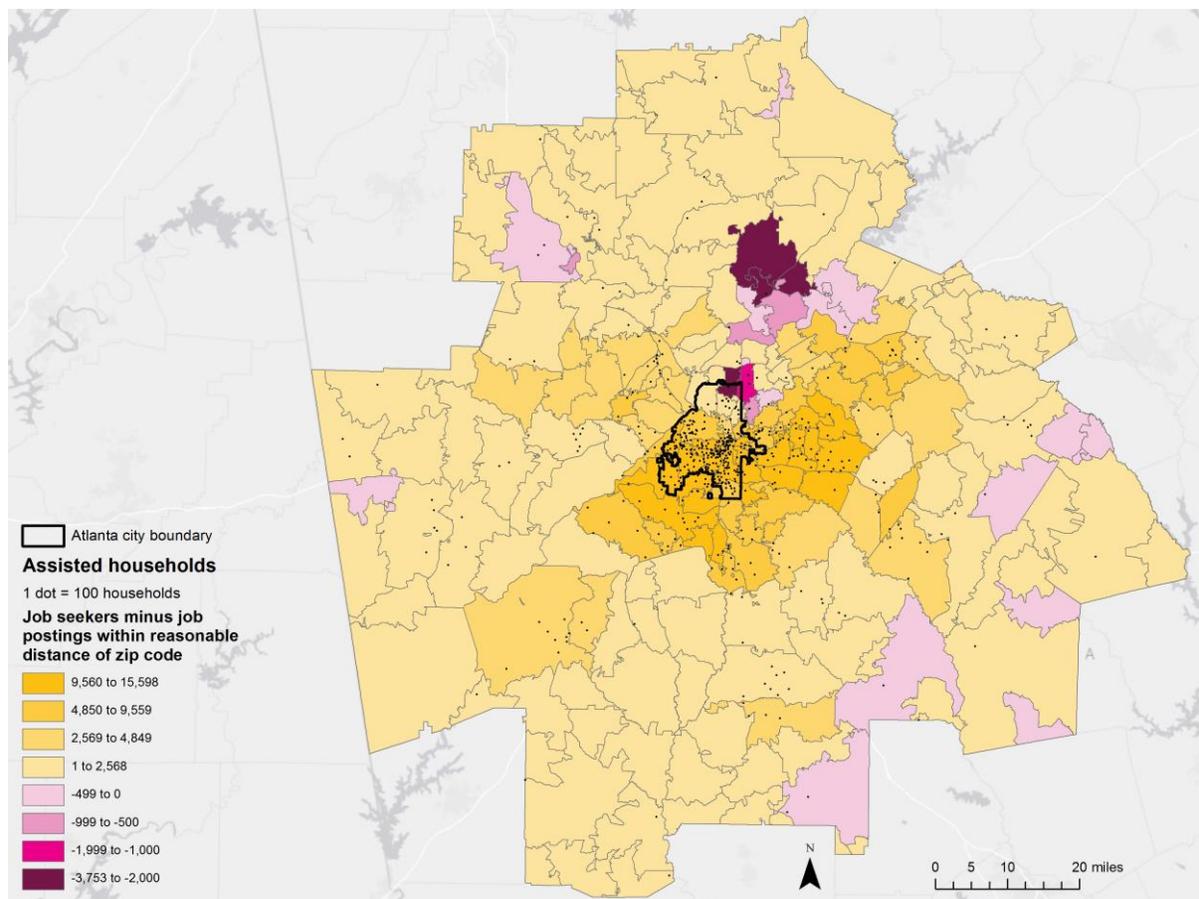
In the Atlanta region, the average household across all three types (assisted, unassisted and extremely low income, unassisted and not extremely low income) lives in an area with more job seekers than job postings within a reasonable commuting distance. Figure 5 shows overall spatial mismatch for each zip code in the Atlanta region overlaid with dots that represent the number of assisted households in each zip code.

Comparing Snagajob spatial mismatch for assisted households with that of households that are unassisted and extremely low income, Atlanta is the third-worst MSA in our sample. Assisted households have much higher levels of mismatch than do unassisted, extremely low-income households, suggesting that public housing and/or households with vouchers are in areas with fewer opportunities than the areas where other, similar households live. Assisted households have an average

of 7,596 more job seekers than nearby jobs, and unassisted, extremely low-income households have 4,307 more seekers than nearby jobs. Higher-income households fare best, although of the 16 MSAs, Atlanta has the fifth-highest overall level of spatial mismatch for unassisted households that are not extremely low income.

Geographically, the areas with the most excess job seekers tend to be in the city and inner-ring southern suburbs, while the areas with excess jobs tend to be scattered across the outer-ring suburbs. Assisted households tend to be concentrated in the more central areas where job seekers outweigh job postings, making their mismatch levels higher than those of unassisted, extremely low-income households.

FIGURE 5
Spatial Mismatch and Public and Assisted Housing in the Atlanta MSA, by Zip Code



Sources: Urban Institute analysis of 2015 Snagajob data, 2015 US Department of Housing and Urban Development Picture of Subsidized Households data, and 2013–17 American Community Survey five-year estimates.

Notes: Spatial mismatch is the number of Snagajob applicants minus the number of Snagajob postings within a 6.3-mile radius of each zip code’s population-weighted centroid. Assisted households are those that receive assistance through the public housing, Housing Choice Voucher, moderate rehabilitation, and project-based Section 8 rental assistance programs.

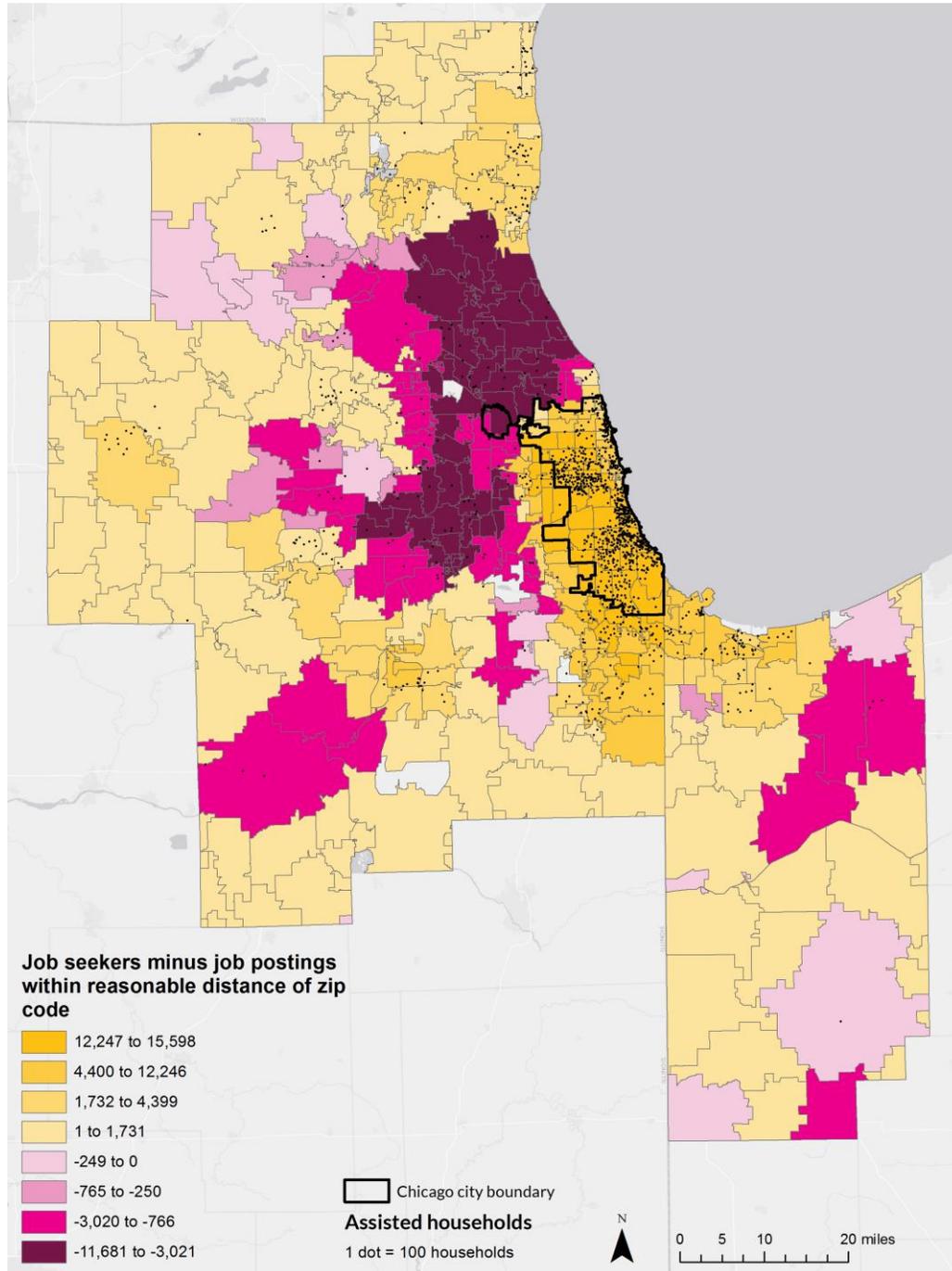
Chicago

In the Chicago region, as in Atlanta, the average household across all three types we looked at lives in an area where job seekers outnumber job postings, although the spatial mismatch is notably larger for assisted households than for the other groups. Households that are unassisted and not extremely low income have an average of 3,499 more job seekers than nearby job postings, and households that are unassisted and extremely low income have 5,806 more seekers than nearby job postings. However, assisted households have 9,312 more seekers than jobs.

The largest concentration of assisted households in the region is within Chicago proper, primarily in two areas: the South Side and the West Side (figure 6). Those on the West Side, by being close to both the job opportunities in the Loop and the developing neighborhoods to its immediate west, are better positioned than are those on the South Side. However, as with Atlanta, the number of job seekers in the central city outnumbers the number of job postings, indicating stronger competition. Zooming out to the region, Chicago's northwestern and western suburbs are where net job ratios are most favorable, although few households in those areas live in assisted housing.

FIGURE 6

Spatial Mismatch and Public and Assisted Housing in the Chicago MSA, by Zip Code



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Sources: Urban Institute analysis of 2015 Snagajob data, 2015 US Department of Housing and Urban Development Picture of Subsidized Households data, and 2013–17 American Community Survey five-year estimates.

Notes: Spatial mismatch is the number of Snagajob applicants minus the number of Snagajob postings within a 6.3-mile radius of each zip code's population-weighted centroid. Assisted households are those that receive assistance through the public housing, Housing Choice Voucher, moderate rehabilitation, and project-based Section 8 rental assistance programs.

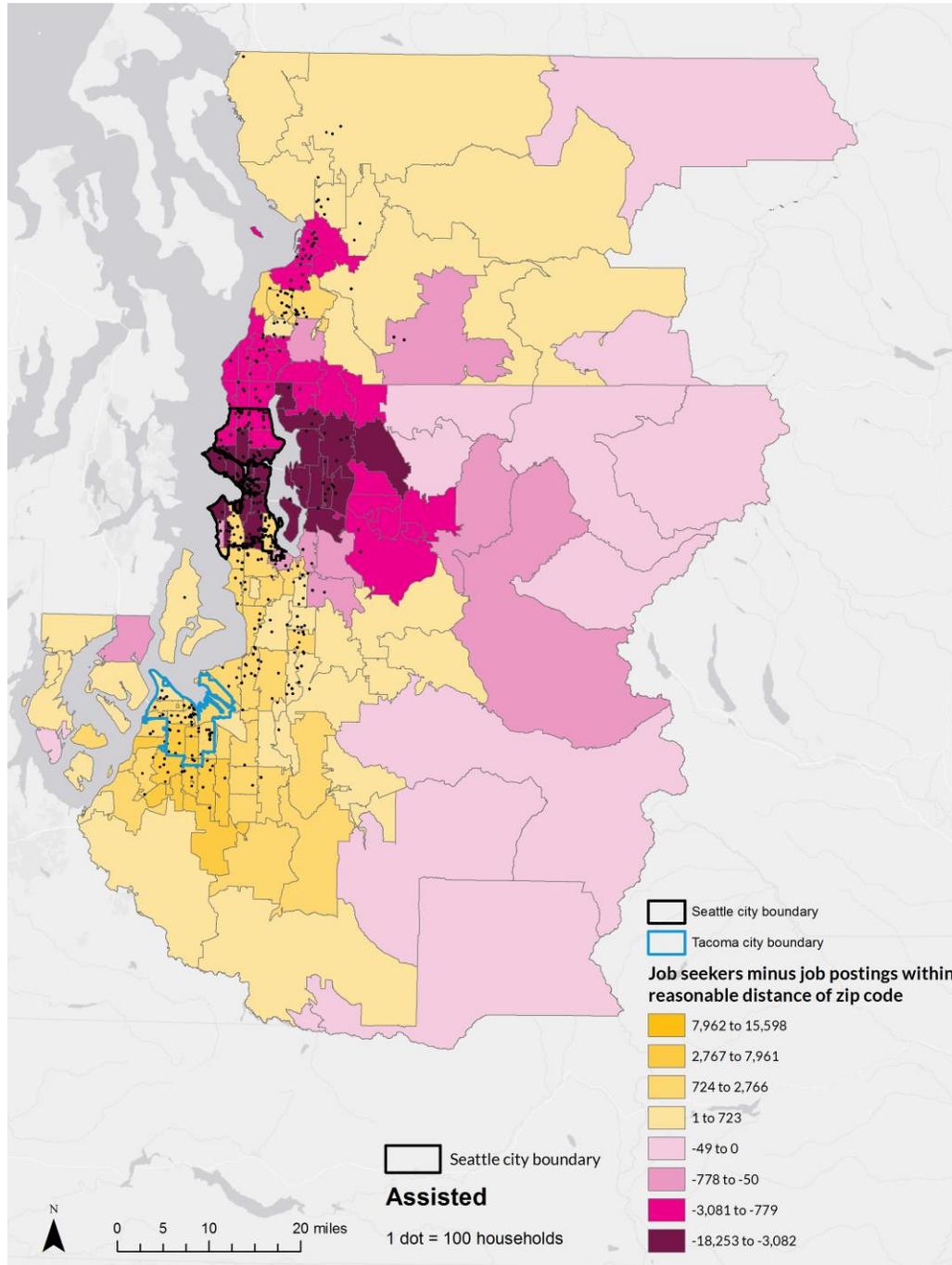
Seattle

Of the four case study regions, Seattle offers the best net job opportunities across all three household types. Both households that are unassisted and extremely low income and those that are unassisted and not extremely low income have, on average, more proximate job postings than job seekers (1,182 and 1,324 more postings than seekers, respectively). Seattle is also the only one of the four MSAs where assisted households have comparatively greater access to jobs relative to unassisted, extremely low-income households. Assisted households live in areas that have, on average, 1,539 more Snagajob postings than job seekers within a reasonable commuting distance.

Geographically, the Seattle MSA is characterized by strong job opportunities throughout the region (figure 7). Most assisted households are in the city of Seattle, which means not only that these residents are living close to job opportunities, but also that these neighborhoods see net positive job ratios, indicating a job seeker's market. To the south, in Tacoma, the job situation (both in raw job postings and in net numbers) is weaker, so assisted households face deeper challenges in finding and obtaining jobs.

FIGURE 7

Spatial Mismatch and Public and Assisted Housing in the Seattle MSA, by Zip Code



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Sources: Urban Institute analysis of 2015 Snagajob data, 2015 US Department of Housing and Urban Development Picture of Subsidized Households data, and 2013–17 American Community Survey five-year estimates.

Notes: Spatial mismatch is the number of Snagajob applicants minus the number of Snagajob postings within a 6.3-mile radius of each zip code’s population-weighted centroid. Assisted households are those that receive assistance through the public housing, Housing Choice Voucher, moderate rehabilitation, and project-based Section 8 rental assistance programs.

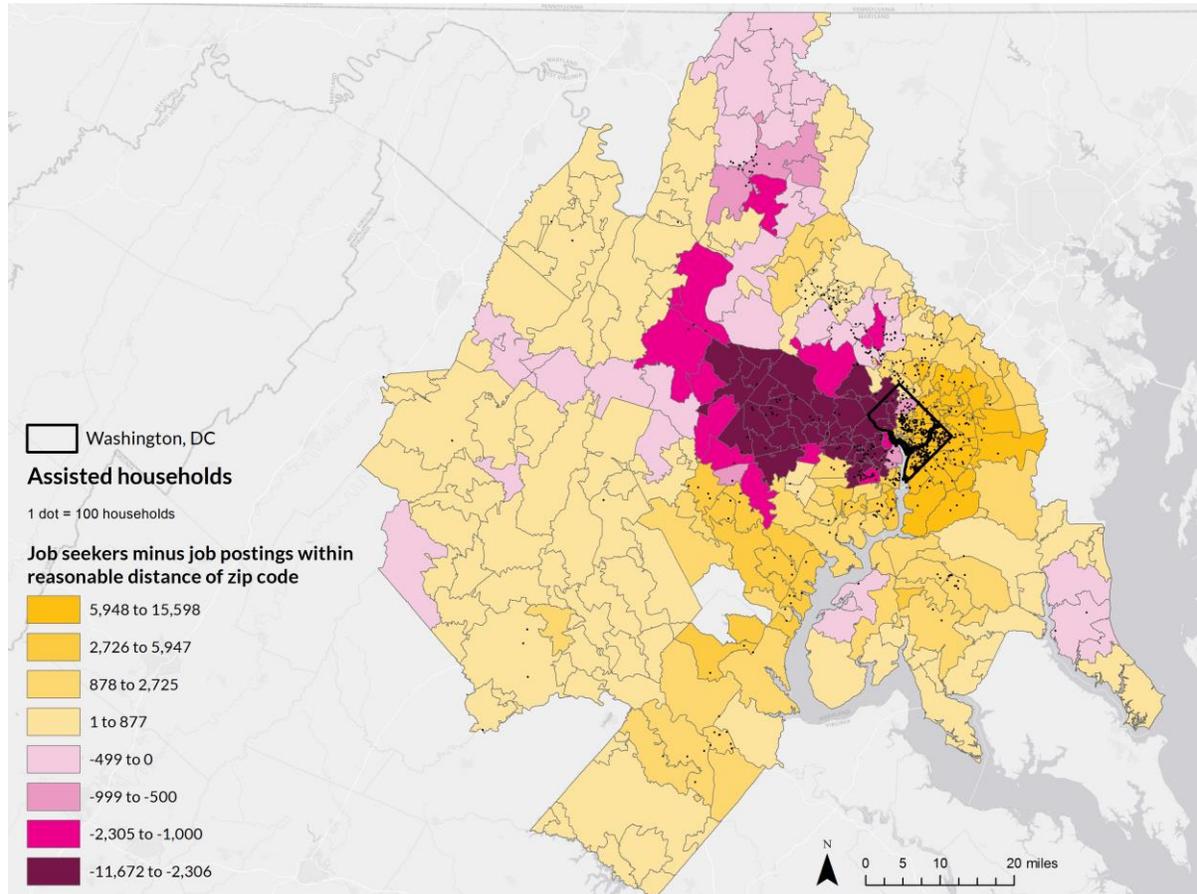
Washington, DC

In the Washington, DC, region, job seekers outnumber job postings in the area where the average household across all three types lives. However, assisted households face much higher levels of spatial mismatch than do unassisted, extremely low-income households. Assisted households have an average of 5,936 more job seekers than job postings within a reasonable commuting distance, compared with 2,881 for unassisted, extremely low-income households. This gives the Washington, DC, MSA the fourth-highest disparity between spatial mismatch for assisted households and unassisted, extremely low-income households among the 16 MSAs we studied.

Assisted households in the Washington, DC, region are concentrated in the District (particularly east of the Anacostia River) and, to a lesser extent, in some of the closer-in suburban jurisdictions (Arlington and Alexandria in Virginia and Montgomery County and Prince George's County in Maryland). Job postings are concentrated in downtown DC, Arlington, and Fairfax (also in Virginia), although the areas where job postings outnumber job seekers are generally west of the District (figure 8). This means that households living closer to downtown and in Virginia are more proximate to job opportunities, although Fairfax, where the opportunities are the greatest, has relatively few assisted households.

FIGURE 8

Spatial Mismatch and Public and Assisted Housing in the Washington, DC, MSA, by Zip Code



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Sources: Urban Institute analysis of 2015 Snagajob data, 2015 US Department of Housing and Urban Development Picture of Subsidized Households data, and 2013–17 American Community Survey five-year estimates.

Notes: Spatial mismatch is the number of Snagajob applicants minus the number of Snagajob postings within a 6.3-mile radius of each zip code's population-weighted centroid. Assisted households are those that receive assistance through the public housing, Housing Choice Voucher, moderate rehabilitation, and project-based Section 8 rental assistance programs.

Discussion of Findings

Given our findings, low-income households may lack sufficient choice in where to live when they qualify for housing assistance. Although public and assisted housing provides many benefits (many of which are outside the scope of this analysis—such as, reduced rent burden, increased housing stability, and other neighborhood characteristics not linked to jobs), our findings show that, on average, increasing proximity to net hourly jobs is not always one of these benefits. We find a fairly high level of heterogeneity across the MSAs we studied. However, on average, assisted households fare worse than unassisted, extremely low-income households in spatial access to hourly jobs. This finding suggests that mismatches can be addressed by policymakers and housing agencies if they take into consideration

location concerns when making investment decisions going forward and when providing mobility counseling to residents with HCVs.

Although these results are suggestive, the analysis has several limitations:

- First, the jobs data include only the jobs from one online job search engine, which may not be representative of all hourly jobs. Prior studies have shown that the composition of Snagajob applicants is comparable to the composition of the unemployed in the US Census Bureau's Current Population Survey and that Snagajob's time-series patterns are roughly consistent with the time-series patterns of published statistics (Faberman and Kudlyak 2016). But that might not be true in every city and zip code. Further analysis using other datasets would be valuable.
- Second, our analysis addressed the relationship between public and assisted housing and employment. However, the relationship is complex, and other factors merit consideration. Notably, we could not account for differences in transportation access. An extensive transit system could help people hold jobs farther from their homes. Conversely, a sparse transit system could exacerbate spatial mismatch.
- Third, this study does not account for whether the assisted households are elderly and/or disabled and therefore not work-able. This may account for a large portion of households in public and assisted housing, and for these households, proximity to jobs is not likely to be a pressing consideration. Future work should use microdata households to examine spatial mismatch for only work-able households for both assisted households and comparison households.

Policymakers have several ways they could address the challenge of spatial mismatch and structural barriers:

- First, housing authorities could focus on locating assisted housing close to areas with excess jobs relative to job seekers. This is principally the case for PBRA projects, which have the lowest average spatial mismatch among the assistance types and unlike public housing are still being built.
- Policymakers should also account for housing, health care, child care, access to fresh food, and access to transit when deciding where to support the development of assisted housing units. They should do so knowing that even though a unit may be in an area with many employment possibilities, people may choose not to live there because they value other services that improve their quality of life.
- For households assisted through vouchers, local leaders could better enforce antivoucher discrimination laws or pass stronger laws prohibiting housing discrimination based on source of income. Broader race and ethnicity discrimination also affects where people can live (Turner et al. 2013).

- Public housing agencies may also be able to increase access to high-opportunity neighborhoods for households with vouchers by using small area fair market rents, which provide deeper subsidies in more expensive neighborhoods (NYU Furman Center 2018).⁶

This study's findings reveal regional challenges to job access and the location of public and assisted housing. For example, Arlington, near Washington, DC, and Chicago's northwestern and western suburbs are job-rich but have few assisted households (they disproportionately live in the urban core). To make progress, regional challenges will require regional solutions. Significant federal and state changes will be needed to incentivize and mandate greater regional equity in the location of public and assisted housing units and access to job opportunities.

Another potential policy solution is for housing authorities to partner with employers in high-opportunity areas and provide job training and support and, where necessary, transportation. This could come in the form of expanding programs that many housing authorities provide to offer services, trainings, and subsidies for supported employment.

State and local governments could negotiate with large employers moving to an MSA for financial support for affordable housing to mitigate the increases in housing prices that happen when large companies move into new parts of the country. Employers could pay the equivalent of an impact fee that local governments could use to subsidize additional housing units for low-income residents at risk of displacement.

Policymakers should also keep in mind that simply living close to jobs does not guarantee that they are accessible to all households. Some households may not have access to social networks that transmit robust information about potential employment opportunities. And as mentioned, training and skill building may be needed. Employers may also discriminate in hiring against residents of subsidized housing by discriminating against those of a certain race or socioeconomic status. Bertrand and Mullainathan (2003) found that when employers received two résumés that were identical except for the names on them, they were less likely to hire people with names considered distinctively African American than people with names considered distinctively white.

Looking ahead, further research should attempt to identify a causal link between public and assisted housing and spatial mismatch through use of panel data and quasi-experimental techniques. It should also explore data for additional MSAs and non-MSAs, to support or refine the relationship we found. Looking at transit options and commuting patterns will offer insights about the influence of public transportation, commuting times, and cost of transportation on spatial mismatch. This, combined with a regional approach to measuring job opportunities, could provide a fuller picture of commuting patterns and job-seeking activities. Finally, additional and more in-depth case studies of areas with low or no mismatch, as well as areas with community amenities and strong antidiscrimination efforts, could be valuable for policymakers.

Appendix. Data and Methods

Data in this brief come from three sources: the US Census Bureau's American Community Survey, HUD's publicly available Picture of Subsidized Households data, and Snagajob data on job listings and job seekers. Picture of Subsidized Households data describe the number of households in each census tract that receive housing assistance funded by HUD. They identify units and the occupancy rates of rental units covered by the public housing, HCV, moderate rehabilitation, PBRA, rental assistance and rent support, sections 811 and 202 supportive housing, and sections 236 and 221 below market interest rate programs. Our analysis focuses on public housing, HCV, PBRA, and moderate rehabilitation programs. We use data on other programs only to define our comparison group. Picture of Subsidized Households data do not include all low-income housing tax credit properties, although they do include individuals in those properties if they use vouchers.

The data on job postings and seekers come from Snagajob, the largest online marketplace for hourly jobs. Snagajob data primarily capture low-wage job listings and job seekers. The jobs are hourly and are often minimum-wage. The jobs are predominantly full time, and most are restaurant, retail, or customer service positions. Snagajob applicants usually have only a high school diploma and are evenly split by gender. Unlike other job databases that often show only matched jobs, Snagajob data include job postings and applicants, whether or not they have found a match. Snagajob provided us with point-level data that covered 16 MSAs.⁷

American Community Survey five-year estimates for 2013–17 allow us to calculate the number of households in each Zip Code Tabulation Area (ZCTA) that were potentially eligible for assisted or public housing based on their income. We consider a household to be potentially eligible if its income is less than 30 percent of AMI for a household of four people. We then estimate the number of households that are potentially income-eligible but are not receiving subsidies by calculating the difference between the number of households that are potentially eligible and the total assisted households reported in the Picture of Subsidized Households data for 2015. In 2015, Picture of Subsidized Households data are only available at the tract level. To make Picture of Subsidized Households data comparable to the other ZCTA data, we combine and weight tracts using a ZCTA-tract crosswalk. Once we create a ZCTA-level estimate for the number of assisted units, we subtract it from the total number of potentially eligible households in the ZCTA to determine the number of unassisted but eligible households. We obtained all American Community Survey data through the online portal National Historical Geographic Information System (IPUMS NHGIS, University of Minnesota, www.nhgis.org).

To calculate spatial mismatch, we first identify the population-weighted centroid of each zip code, which is the point within a zip code that minimizes the distance to each person. We then draw a radius of 6.3 miles around each centroid and tabulate the number of listed jobs and the number of job seekers within that radius. We chose 6.3 miles as the cutoff because it was the average distance to which Snagajob applicants applied to jobs in the system, after removing outliers. Using these two totals, we subtract the number of jobs from the number of job seekers to calculate the net number of job seekers in each ZCTA's centroid. Finally, to prevent outliers from having an inappropriate impact on our

averages, we winsorize the averages and reassign the value for the fifth percentile to the lowest 5 percent of ZCTAs and the 95th percentile to the highest 5 percent of ZCTAs.

After we prepare each dataset, we combine the data to create a ZCTA-level file with net job seekers, assisted households, and unassisted households. This allows us to calculate the average number of net job seekers that each household would have to compete with were they to use Snagajob. We calculate this average first for the households that receive assistance through public housing, HCV, and either PBRA or moderate rehabilitation and compare that with the population that was potentially eligible but not assisted by any HUD program. For assisted, unassisted and extremely low-income, and unassisted and moderate- and upper-income households, we tabulate the average household-level spatial mismatch to see whether receiving a housing subsidy correlates with more or less spatial mismatch for those households.

We tabulate the average mismatch scores for each of the 16 MSAs for which we had unique, proprietary jobs data. We also calculate household-level averages across all the MSAs for assisted and unassisted households.

Notes

- ¹ Christina Stacy, Terry-Ann Craigie, Brady Meixell, Graham MacDonald, Sihan Vivian Zheng, and Christopher Davis, “Too Far from Jobs: Spatial Mismatch and Hourly Workers,” Urban Institute, February 21, 2019, <https://www.urban.org/features/too-far-jobs-spatial-mismatch-and-hourly-workers>.
- ² US Bureau of Labor Statistics, “Job Openings and Labor Turnover Summary,” new release no. USDL-20-0048, January 17, 2020, <https://www.bls.gov/news.release/jolts.nr0.htm>.
- ³ The moderate rehabilitation program provides project-based rental assistance for low-income families. The program was repealed in 1991, and no new projects are authorized for development. Assistance is limited to properties previously rehabilitated pursuant to a housing assistance payments contract between an owner and a public housing agency. See “Moderate Rehabilitation,” US Department of Housing and Urban Development, https://www.hud.gov/program_offices/public_indian_housing/programs/ph/modrehab.
- ⁴ HUD, “Picture of Subsidized Households,” accessed December 10, 2019, <https://www.huduser.gov/portal/datasets/assthg.html>.
- ⁵ We found similar results when we ran our analyses using households below 50 percent of AMI.
- ⁶ Some housing authorities in our sample were already using small area fair market rents during our study period, and others have since adopted them. For more information, see “Fair Market Rents,” US Department of Housing and Urban Development, <https://www.huduser.gov/portal/datasets/fmr.html>.
- ⁷ For additional detail, see Christina Stacy, Terry-Ann Craigie, Brady Meixell, Graham MacDonald, Sihan Vivian Zheng, and Christopher Davis, “Too Far from Jobs: Spatial Mismatch and Hourly Workers,” Urban Institute, February 21, 2019, <https://www.urban.org/features/too-far-jobs-spatial-mismatch-and-hourly-workers>.

References

- Bertrand, Marianne, and Sendhil Mullainathan. 2003. "Are Emily and Greg More Employable than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination." Working Paper 9873. Cambridge, MA: National Bureau of Economic Research.
- Blumenberg, Evelyn, and Gregory Pierce. 2014. "A Driving Factor in Mobility? Transportation's Role in Connecting Subsidized Housing and Employment Outcomes in the Moving to Opportunity (MTO) Program." *Journal of the American Planning Association* 80 (1): 52–66.
- Chetty, Raj, Nathaniel Hendren, and Lawrence F. Katz. 2016. "The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment." *American Economic Review* 106 (4): 855–902.
- Crump, Jeff. 2002. "Deconcentration by Demolition: Public Housing, Poverty, and Urban Policy." *Environmental and Planning D: Society and Space* 20 (5): 581–96.
- Cunningham, Mary K., Martha M. Galvez, Claudia Aranda, Robert Santos, Douglas A. Wissoker, Alyse D. Oneto, Rob Pitingolo, and James Crawford. 2018. *A Pilot Study of Landlord Acceptance of Housing Choice Vouchers*. Washington, DC: US Department of Housing and Urban Development, Office of Policy Development and Research.
- Faberman, R. Jason, and Marianna Kudlyak. 2016. "What Does Online Job Search Tell Us About the Labor Market?" *Economic Perspectives* 40 (1): 1–15.
- Gobillon, Laurent, Harris Selod, and Yves Zenou. 2007. "The Mechanisms of Spatial Mismatch." *Urban Studies* 44 (12): 2401–27.
- Gourevitch, Ruth, Solomon Greene, and Rolf Pendall. 2018. "Place and Opportunity: Using Federal Fair Housing Data to Examine Opportunity across US Regions and Populations." Washington, DC: Urban Institute.
- HUD (US Department of Housing and Urban Development). 2019. "Landlords: Critical Participants in the Housing Choice Voucher Program." *Evidence Matters* (winter).
- Kain, John F. 1968. "Housing Segregation, Negro Employment, and Metropolitan Decentralization." *Quarterly Journal of Economics* 82 (2): 175–97.
- Kneebone, Elizabeth. 2019. *The Employment Landscape for Subsidized Households*. Washington, DC: Enterprise Community Partners.
- Lens, Michael, Kirk McClure, and Brent Mast. 2019. "Does Jobs Proximity Matter in the Housing Choice Voucher Program?" *Cityscape* 21 (1): 145–62.
- Levy, Diane K., Leïha Edmonds, and Jasmine Simington. 2018. *Work Requirements in Public Housing Authorities: Experiences to Date and Knowledge Gaps*. Washington, DC: Urban Institute.
- McClure, Kirk, Alex F. Schwartz, and Lydia B. Taghavi. 2015. "Housing Choice Voucher Location Patterns a Decade Later." *Housing Policy Debate* 25 (2): 215–33.
- Offner, Paul, and Daniel H. Saks. 1971. "A Note on John Kain's 'Housing Segregation, Negro Employment, and Metropolitan Decentralization.'" *Quarterly Journal of Economics* 85 (1): 147–60.
- NYU Furman Center. 2018. "How Do Small Area Fair Market Rents Affect the Location and Number of Units Affordable to Voucher Holders?" New York: NYU Furman Center.
- Pendall, Rolf, Christopher Hayes, Arthur (Taz) George, Zach McDade, Casey Dawkins, Jae Sik Jeon, Eli Knaap, Evelyn Blumenberg, Gregory Pierce, and Michael Smart. 2014. *Driving to Opportunity: Understanding the Links among Transportation Access, Residential Outcomes, and Economic Opportunity for Housing Voucher Recipients*. Washington, DC: Urban Institute.
- Sard, Barbara, Douglas Rice, Alison Bell, and Alicia Mazzara. 2018. *Federal Policy Changes Can Help More Families with Housing Vouchers Live in Higher-Opportunity Areas*. Washington, DC: Center on Budget and Policy Priorities.
- Stoll, Michael A., and Kenya Covington. 2012. "Explaining Racial/Ethnic Gaps in Spatial Mismatch in the US: The Primacy of Racial Segregation." *Urban Studies* 49 (11): 2501–21.

Turner, Margery Austin, Susan J. Popkin, and Lynette A. Rawlings. 2008. *Public Housing and the Legacy of Segregation*. Washington, DC: Urban Institute Press.

Turner, Margery Austin, Rob Santos, Diane K. Levy, Doug Wissoker, Claudia Aranda, and Rob Pitingolo. 2013. *Housing Discrimination against Racial and Ethnic Minorities 2012*. Washington, DC: US Department of Housing and Urban Development, Office of Policy Development and Research.

Wilson, William Julius. 2012. *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy*. Chicago: University of Chicago Press.

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