The Changing Geography of Spatial Mismatch

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Abstract

Using data from Snagajob, we analyze spatial mismatch for low-wage workers in Detroit, Michigan, and Seattle, Washington. In Detroit, more low-wage job seekers than jobs exist in the central city, while the suburbs have a larger number of low-wage jobs than workers seeking those jobs. In Seattle, there is an overabundance of low-wage job seekers in the suburbs and an overconcentration of low-wage jobs in the central city.

In many cities in the United States, low-wage workers live far from available jobs (Stacy et al., 2019). This phenomenon, called spatial mismatch, causes high unemployment rates and longer spells of joblessness among lower-paid workers (Andersson, Klaesson, and Larsson, 2014; Bruekner and Zenou, 2003), particularly Black residents, women, and older workers (Andersson et al., 2018). Although spatial mismatch theory was initially developed through the lens of racial discrimination, the mechanisms are also relevant to households with low incomes.

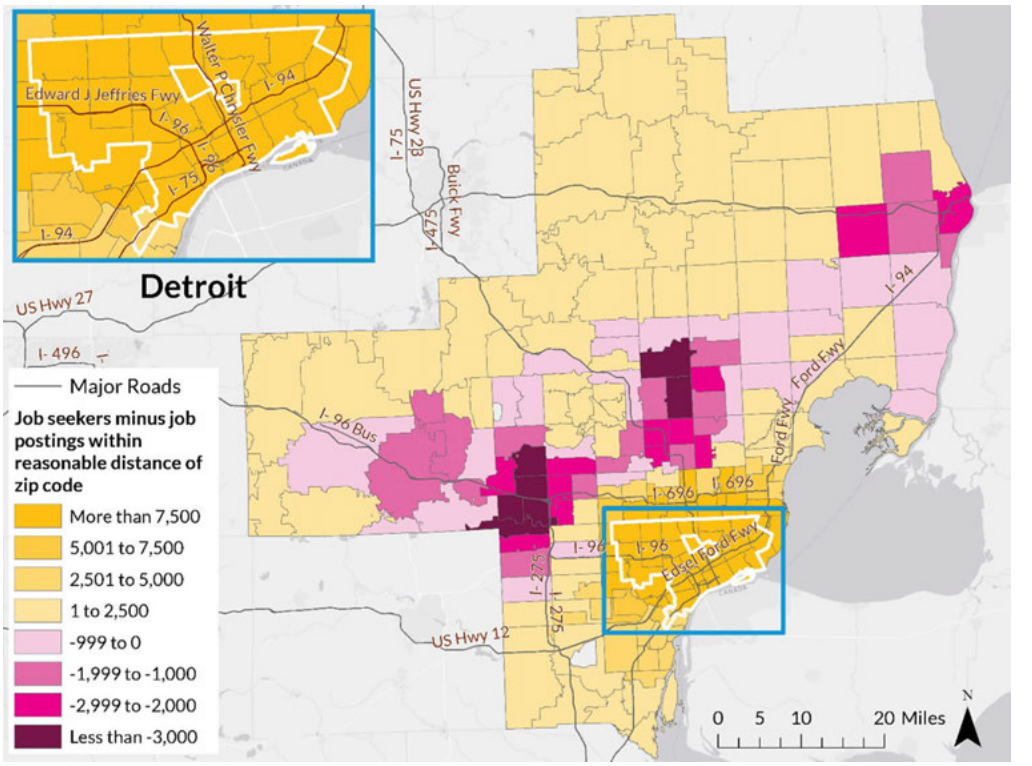
To measure spatial mismatch, we use data from Snagajob, the largest online marketplace for hourly jobs. We use Snagajob applicant and posting data from 2015 to calculate a measure of spatial mismatch—specifically, the number of job seekers minus the number of job postings within a reasonable commuting distance of each ZIP Code.[1] We define the reasonable commuting distance to be a 6.3-mile radius around the population-weighted center of each ZIP Code because that 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 metropolitan statistical areas (MSAs), which were selected to create a diverse group of places based on geography, population growth, and labor market conditions.

[1] In accordance with the data-sharing agreement with Snagajob, we were provided data aggregated to the ZIP Code, as the smallest level of geography they were comfortable releasing.

When this phenomenon was first studied in the 1960s, 1970s, and 1980s, the type of mismatch that was most prevalent followed a pattern in which low-income workers lived in central cities and jobs predominantly existed in the suburbs (Ellwood, 1986; Holzer, 1991; Kain, 1968; Wilson, 1987). This kind of spatial mismatch pattern is still visible today in some cities, such as Detroit (exhibit 1). In Detroit, more low-wage job seekers than jobs exist in the central city, while the suburbs have a larger number of low-wage jobs than workers seeking those jobs.

Exhibit 1

Spatial Mismatch in the Detroit, Michigan Area, 2015



Note: "Reasonable distance" is 6.3 miles from the population-weighted centroid of each ZIP Code, the average distance between job seekers and jobs for each application in our dataset.

Sources: Urban Institute analysis of 2015 Snagajob data; map layers from Esri, HERE, Garmin, OpenStreetMap contributors, and the GIS user community

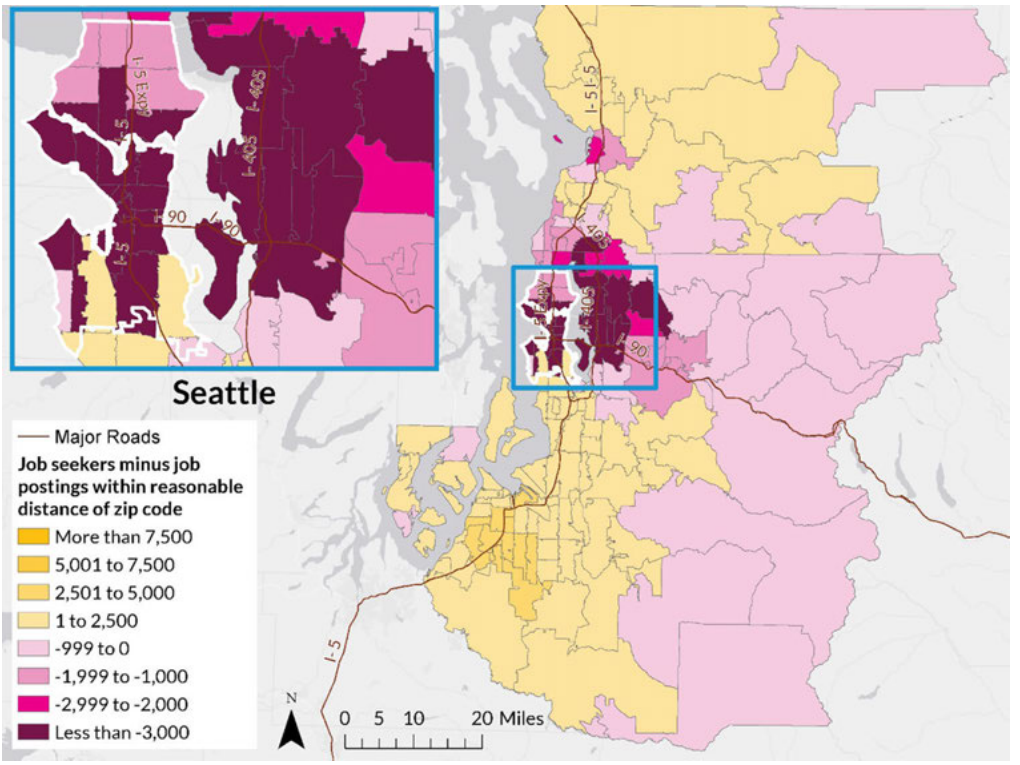
Since the early 2000s, however, many cities have begun to face a new type of spatial mismatch, with lower-wage workers overconcentrated in the suburbs and job opportunities located in the urban core. This pattern is at least partially due to a residential and employment resurgence, where younger and higher-skilled individuals have increasingly chosen to live closer to downtown areas (Baum-Snow and Hartley, 2017; Couture and Handbury, 2017; Edlund, Machado, and Sviatschi, 2015). This influx of relatively high-income earners has led to the gentrification of many historically low-income neighborhoods, putting pressure on incumbent residents, especially low-income renters, to move elsewhere in search of affordable housing (Brummet and Reed, 2018).

In some cities, this increased density of higher-income residents in the urban core has led to the displacement of lower-income residents into the suburbs.

This form of spatial mismatch is visible in Seattle (exhibit 2), where there is an overabundance of low-wage job seekers in the suburbs, and an overconcentration of low-wage jobs in the central city. This mismatch could be due to the high cost of rental housing in Seattle, forcing lower-wage workers to seek housing farther outside of the city. In 2017, Seattle had the 4th highest gross rent of any city in the country at $1,555.[2]

Exhibit 2

Spatial Mismatch in the Seattle, Washington Area, 2015



Note: "Reasonable distance" is 6.3 miles from the population-weighted centroid of each ZIP Code, the average distance between job seekers and jobs for each application in our dataset.

Sources: Urban Institute analysis of 2015 Snagajob data; map layers from Esri, HERE, Garmin, OpenStreetMap contributors, and the GIS user community

To address spatial mismatch, cities should use data to better understand their own mismatch patterns and design policy and practice solutions to link people to jobs. Investments in affordable housing and increasing urban density (Durst, 2020), transit connections between areas of opportunity and pockets of poverty (Ong and Miller, 2005), and advancements in career pathways

[2] Balk, Gene. 2019. "Seattle now most expensive city for renters outside California, census data shows." *The Seattle Times*. July 30. https://www.seattletimes.com/seattle-news/data/seattle-now-most-expensive-city-for-renters-outside-california-census-data-shows.

and wages for low-wage workers may be ways to reduce the negative impacts of spatial mismatch. Special consideration should also be given to those living in public housing and federally subsidized housing who have experienced increased levels of spatial mismatch compared with similar populations of unassisted households (Stacy et al., 2020). More research is needed to understand the specific patterns of mismatch in different cities and to identify solutions that work to reduce the negative impacts of mismatch.

Authors

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