The Spatial Dynamics of Racial Discrimination: Local Racial Contexts and Disparate Treatment in Finding Housing

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**Background:** A large body of social scientific research demonstrates that residential segregation between whites and racial/ethnic minorities serves as the foundation for social, economic, and health disparities. Scholars have also proposed that segregation is perpetuated by housing market discrimination against racial/ethnic minorities, and discrimination itself is associated with stress, depression, and other poor health outcomes. Prior research has shown that characteristics of both homeseekers and housing market agents predict discrimination and that, on average, the incidence of most type of housing discrimination has steadily declined since the 1980s. Yet, key questions remain unanswered regarding geographic variation in discrimination, and more broadly, in the spatial conditions under which discrimination is likely to occur. These gaps in knowledge are critical, for unless it is understood how discrimination continues to occur, it will be difficult to design effective housing market interventions to combat segregation and thus reduce racial disparities in socioeconomic and health outcomes.

Our goal in this project is to document the spatial and temporal dynamics of housing discrimination and to examine the influence of neighborhood contexts and population processes on those dynamics. More specifically, we seek to understand how features of neighborhoods, their surrounding territories, and broader metropolitan areas shape the incidence of discrimination. We hypothesize not only that the racial/ethnic composition of neighborhoods will affect the propensity for discriminatory behaviors on behalf of real estate agents and landlords, but that evolving changes in the racial/ethnic makeup and features of housing markets will further structure the possibility of discrimination. The potential for discrimination against African Americans, for example, is not only likely to be conditioned by whether the homeseeker is searching in a white vs. a black neighborhood, but also shaped by the longer history of racial/ethnic migration into and out of a neighborhood, its location in the constellation of all neighborhoods in a city, and broader demographic processes that may alter the opportunities to find same-race neighborhoods.

To answer these questions, we use newly-available audit data from the 2012 Department of Housing and Urban Development’s Housing Discrimination Study (HDS),
geocoded and linked to census data describing the demographic makeup of the neighborhoods (and surrounding neighborhoods) where audited units are located. While the HDS data have been used to describe broad trends in discrimination and to explore basic correlates, they have received very little empirical attention from sociologists and demographers despite—given their experimental nature and geographic scope—being an ideal source of data for understanding racial inequality in housing markets processes.

**Data and Methods:** The primary data source for this project is the Housing Discrimination Study. The HDS has been conducted approximately once per decade since 1989 by the U.S. Department of Housing and Urban Development (HUD). The goal of the HDS is to assess the prevalence of and trends in housing discrimination in the United States. The ingenuity of the HDS comes from its quasi experimental design, in which two racially-dissimilar but otherwise matched subjects separately respond to randomly-selected housing advertisements and document how they were treated in the process via a standardized survey instrument. Matching testers on age and gender, and assigning consistent traits related to how individuals are regarded by housing agents—e.g., income, available assets, existing debt, education, occupation, and family composition—racial differences in housing experiences under this audit approach provide a simple, upper-bound estimate of systematic racial and ethnic discrimination in housing markets. In this project we use data from the most recent iteration of the HDS, carried out between 2011 and 2012. In total, the 2012 HDS completed 8,245 paired tests in 28 metropolitan areas; of these, 3,363 were in the sales market and 4,882 were in the rental market.

The HDS microdata include responses to questionnaires completed by all testers following a housing audit about their treatment at multiple points in the housing search process. While the specific items differ in the sales and rental markets, the most salient types of treatment in both include whether the homeseeker was able to make an appointment with an agent; and if so, if the advertised unit was available, if the tester was able to inspect the unit, whether the tester was shown additional units, what the price or rent was and other terms of the lease agreement (e.g., length, fees, and deposits), whether the agent made comments about financial qualifications, and an ordinal representation of agent helpfulness. Given the quasi-experimental design of the HDS audit technique that implicitly controls for non-racial characteristics related to treatment by housing agency, we define disparate treatment as having occurred when the white tester is favored on some dimension over the minority tester, although this assumption that white homeseekers do not ever fall victim to discriminatory treatment can be relaxed through a trichotomous operationalization fit with a multinomial.

Independent variables in this analysis include features of the housing unit (e.g., apartment vs. single family home) and of the audit (e.g., time of day), and known and assumed characteristics of the housing agent (e.g., agent race and gender). Most
Importantly, the data contain the physical addresses of the advertised units (and all other units shown) which are geocoded using GIS tools and spatially joined to current Census geographies (blocks, tract, places, counties, etc). We are thus able to link each housing unit to relevant information on the racial and class composition of the neighborhood and broader geographic context for which the housing unit is situated in. Specifically, we link each unit to custom-tabulations of normalized Census geographies from Geolytics describing levels and changes in racial and class structures. To estimate the pace of neighborhood racial change, we interpolate intercensal year racial-group concentrations using a quadratic growth curve that is a function of the Census Bureau’s annual race-specific population estimates for the county in which the neighborhood is embedded. The black population in Montgomery County, for example, grew at an annual rate of 1.87% (increasing at 0.04 per year) \((R^2 = .9972)\) between 2000 and 2010, which we apply to calculate black populations in each of the 215 census tracts in Montgomery County during the same period. These imputed racial/ethnic counts are used to calculate 3- and 5-year change in group representation and growth rates. With these data on local racial/ethnic concentrations, we use GIS tools to assess racial compositions in nearby areas. These spatially-lagged measures of racial/ethnic composition represent the weighted average concentration of each racial group in areas surrounding each neighborhood. We define ‘neighbors’ based on a distance-decay model which hypothesizes that the influence of outlying areas declines across space (Fotheringham et al. 2002).

Our analytic design is leverages the experimental nature of the HDS to casually identify the effect of tester race on disparate treatment in binary outcome, linear probability models. Our primary interest lies in how neighborhood and other geographic contexts alter the likelihood of discrimination

**Project Progress:** To date, we have fully assembled the raw HDS data and in the process of geocoding each of the addresses and finalizing our construction of the measures of discrimination. We are very confident that the data are suitable, reliable, and plentiful enough to answer the questions described above, and are similarly confident that the models described above will be completed well before the PAA meetings.