Local Landscapes of Assisted Housing: Reconciling Layered and Imprecise Administrative Spatial Data for Research Purposes

Shiloh Deitz, Will B. Payne, Eric Seymour, Kathe Newman and Lauren Nolan

ABSTRACT:

Understanding the stock of rental housing affordable to lower-income households is a crucial task for local governments aiming to meet rising demand and inform policy priorities. But enumerating the number of units with public housing, Project Based Section 8, and Low-Income Housing Tax Credit (LIHTC) assistance and identifying precisely where these units are located is deceptively challenging. Though federal datasets with this information are easily accessible, development and building location information may be unavailable or imprecise. And, critically, it is hard to identify units that receive more than one form of assistance, especially units with LIHTC. To address these challenges in New Jersey, the authors developed a largely automated and replicable process for precisely placing subsidized housing units into tax parcels. This enabled them to link units across federal programs and with state and local data, and to more accurately aggregate counts to integrate with decennial census and American Community Survey (ACS) data from the U.S. Census Bureau. Within New Jersey, they re-geocode records in three datasets using two commercial geocoding services, assign them confidence scores, designate records for manual handling, and then assign them to parcels. Following these steps, they identified more than 15,000 units statewide with overlapping federal subsidies, which would lead to a 12 percent overcount of subsidized units in the state if the three datasets were used as given (and up to a 40 percent overcount in individual municipalities). By re-using and reconciling these datasets at the parcel level, researchers can more accurately enumerate rental units associated with different levels of subsidy depth and duration, a crucial task for identifying housing needs within and beyond the assisted rental stock.

KEYWORDS: *applied GIS, spatial data science, geocoding, administrative data, housing*

Shiloh Deitz, Postdoctoral Associate, Edward J. Bloustein School of Planning and Public Policy, Rutgers, The State University of New Jersey, 33 Livingston Avenue, New Brunswick, NJ, USA

Will B. Payne, Assistant Professor, Edward J. Bloustein School of Planning and Public Policy, Rutgers, The State University of New Jersey, 33 Livingston Avenue, New Brunswick, NJ, USA

Eric Seymour, Assistant Professor, Edward J. Bloustein School of Planning and Public Policy, Rutgers, The State University of New Jersey, 33 Livingston Avenue, New Brunswick, NJ, USA

Kathe Newman, Professor, Edward J. Bloustein School of Planning and Public Policy, Rutgers, The State University of New Jersey, 33 Livingston Avenue, New Brunswick, NJ, USA

Lauren Nolan, Doctoral Student, Edward J. Bloustein School of Planning and Public Policy, Rutgers, The State University of New Jersey, 33 Livingston Avenue, New Brunswick, NJ, USA