Graphic Detail

Geographic Information Systems (GIS) organize and clarify the patterns of human activities on the Earth's surface and their interaction with each other. GIS data, in the form of maps, can quickly and powerfully convey relationships to policymakers and the public. This department of Cityscape *includes maps that convey important housing or community development policy issues or solutions. If you have made such a map and are willing to share it in a future issue of* Cityscape*, please contact alexander.m.din@hud.gov.*

Whom Do We Serve? Refining Public Housing Agency Service Areas

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Abstract

Knowing public housing authority/agency (PHA) service areas is important for understanding the neighborhoods that housing choice voucher holders can most easily reach and for evaluating programmatic reforms and new laws. However, no centralized database on PHA service areas exists, and the information is not always available on PHA websites. The U.S. Department of Housing and Urban Development (HUD) has developed a set of estimated service areas, but they often differ significantly from areas reported on individual PHA websites or fail to capture a large share of voucher activity. In this article, the authors provide a new methodology for improving the coverage of HUD estimated service areas.

Background

Although the Housing Choice Voucher (HCV) program is a federal program, it is managed by more than 3,300 public housing authorities/agencies (PHAs), each with its own jurisdictional boundaries, or service areas. Although technically, voucher holders can use their vouchers to lease a home anywhere in the United States, using vouchers outside the service area of the issuing PHA can be administratively burdensome. Knowing PHA service areas is thus necessary

for understanding the choices presented to HCV holders and for estimating the impacts of programmatic reforms and new laws.

One of the primary goals of the HCV program is to help participants move to higher-opportunity, lower-poverty neighborhoods. However, considerable evidence indicates that it is failing to promote this type of mobility (Ellen, 2020; Galvez, 2010; McClure, Schwartz, and Taghavi, 2015; Wood, Turnham, and Mills, 2008). Garboden (2021) points to administrative boundaries being part of this problem. He finds that voucher holders predominantly move within service areas and that cross-service area moves are extremely rare. His analysis shows that service area boundaries are more salient than either county or municipal boundaries. Knowing service area boundaries can shed light on restrictions on voucher holders' choices and show how coordination and cooperation among PHAs can overcome those barriers.

Knowing a PHA's service area is also key to understanding and evaluating the effects of policies like Small Area Fair Market Rents (SAFMRs) and source of income (SOI) discrimination laws. For example, the introduction of SAFMRs could have different implications for PHAs serving primarily low-rent or high-rent ZIP Codes (Dastrup et al., 2018). Consider also that SOI discrimination laws are enacted by counties and municipalities (not housing agencies), so identifying which counties and municipalities fall within a PHA's service area is important.

Finally, knowing PHA service areas is necessary for creating the data and maps that HUD committed to providing to PHAs and the public as part of its recently reintroduced 2015 Affirmatively Furthering Fair Housing (AFFH) rule. However, no centralized source of information on PHA service areas exists, and few PHAs clearly identify their service areas on their websites. To address this gap, HUD estimated service area boundaries for PHAs across the country,[1] relying on PHA names and the location of most of the PHA's voucher and low-rent units (total units) (HUD, 2018).[2] HUD defines the service areas of state and county PHAs as the entire state or county. Regional PHAs operating in more than one county are assigned the single county that contains most of the PHA's units, potentially leading to under-delineation of its service area. HUD's methodology can also over-delineate the service areas of county, state, or regional PHAs that do not serve areas being served by local PHAs (those that do not operate at the state or county level). HUD defines the service areas of local PHAs as either the unit of general local government (UGLG) that contains the largest share of a PHA's units or the whole county if 20 percent of units are outside the UGLG (HUD, 2018). HUD's estimated areas, which do not specifically focus on vouchers, often are inconsistent with the service areas reported on the few PHA websites that clearly describe them, likely because of the issues described previously.

The authors used administrative HCV data from 2017 to address these delineation problems by modifying HUD's estimated service areas into "revised service areas," which better capture most of the voucher activity for PHAs.

[1] The map can be accessed at https://www.arcgis.com/home/item.html?id=651cfdd0047b463f9aee56d354ad0515.

[2] State PHAs are identified using names and codes if the name contains the state name or the PHA code begins with a "9."

Methods

The authors developed two tests to check the validity of HUD's estimated service areas for PHAs that administer at least 50 vouchers.[3] The first assesses if the estimated service area omits a sizable share of voucher holder locations (so is "too small"); the second checks whether estimated service boundaries include areas the PHA does not seem to serve and that are served by another PHA (so is "too large"). The authors performed these tests and corrections on 377 PHAs with at least 80 percent of their vouchers in a metropolitan area required to adopt SAFMRs or a set of comparison metros.

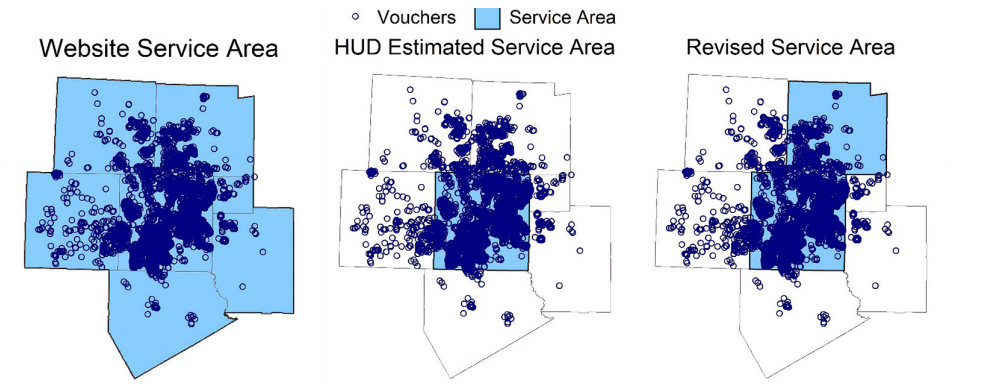
Too Small

The service area of a PHA is considered to be too small if it contains less than 90 percent of the PHA's voucher holders. An example is the Housing Authority of the City of Dallas (PHA code TX009). Exhibit 1 shows the service area described on TX009's website, HUD's estimated service area, and the new, revised service area. The website for the housing authority states that it serves Collin, Dallas, Denton, Ellis, Kaufman, Rockwall, and Tarrant Counties;[4] however, the HUD estimated service area includes only Dallas County. The location of voucher holders that received vouchers from TX009 clearly shows that the PHA serves areas outside Dallas County. Indeed, about 14 percent of the PHA's voucher holders reside outside Dallas County.

A PHA's service area is made larger by adding counties or places that contain at least 5 percent of its voucher holders.[5] The revised service area for TX009 adds Collin County, increasing the share of vouchers covered by the service area from 86 to 92 percent. The other counties listed on the PHA's website are not included because each contains a very small share of the PHA's total vouchers.

Exhibit 1

Housing Authority for the City of Dallas



Sources: Voucher data are from the 2017 administrative PIH Information Center longitudinal dataset; county outlines come from 2019 TIGER/Line Shapefiles via IPUMS NHGIS; HUD's Estimated Service Areas are from the e-GIS Storefront; revised service areas are from the authors' estimations

[3] The authors use different criteria for PHAs that administer less than 50 vouchers. Please see the description of our methodology available on the HUD-eGIS Storefront for more details.

[4] https://dhantx.com/applicants-residents/housing-choice-voucher-program/.

[5] Please see the description of our methodology available on the HUD-eGIS Storefront for more details on the different circumstances under which the authors add counties and places.

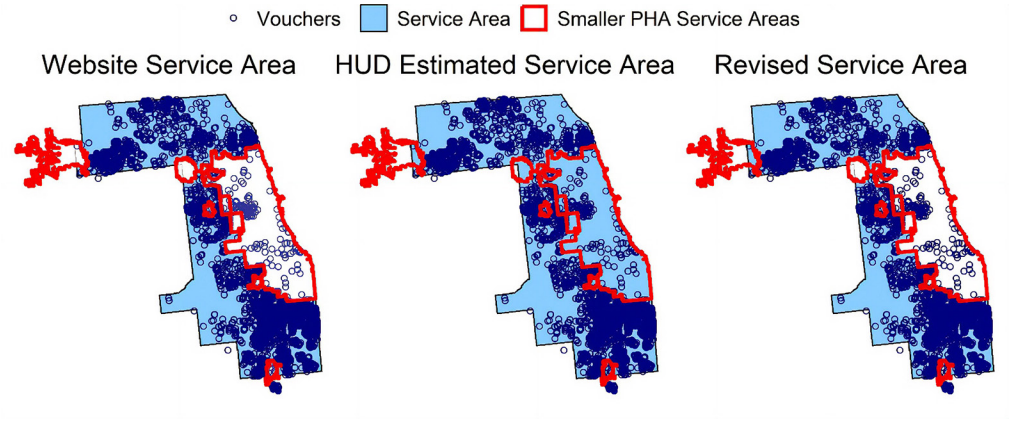
Too Large

A PHA's service area is deemed to be too large if it overlaps with the service area of a second PHA and nearly all voucher holders in that area are from the second PHA.[6] An example of this situation is the HA of Cook County, Illinois (IL025). Its website states that it serves unincorporated or suburban parts of the counties *that are not served by other housing authorities*.[7] However, HUD's estimated service area includes the entirety of Cook County.

Exhibit 2 shows the different service areas for IL025 and the locations of its voucher holders. Six smaller PHAs serve the incorporated parts of Cook County: Chicago, the Village of Oak Park, Maywood, Cicero, Park Forest, and Elgin. The HA of Cook County has just under 1.2 percent of its voucher holders in those areas or outside the county, and vouchers from the HA of Cook County account for less than 5 percent of vouchers in each of these smaller PHAs; thus, the first five jurisdictions from IL025's service area are omitted.[8] The revised service area still covers more than 98 percent of the PHA's voucher holders.

Exhibit 2

Housing Authority of Cook County



PHA = public housing authority/agency.

Sources: Voucher data are from the 2017 administrative PIH Information Center longitudinal dataset; county and CDP outlines come from 2019 TIGER/Line Shapefiles via IPUMS NHGIS; HUD's Estimated Service Areas are from the e-GIS Storefront; revised service areas are from the authors' estimations

[6] Less than 5 percent of the larger PHA's voucher holders and less than 5 percent of the total voucher holders in the second PHA service area come from the larger PHA.

[7] See the HA of Cook County (HACC) website at https://thehacc.org/about/.

[8] The authors do not omit Elgin because HUD's estimated service area for Elgin is Kent County and thus does not overlap with Cook County. The HA of Elgin is therefore not identified as overlapping with the HA of Cook County under the current methodology.

Results

In total, the authors classify the estimated HUD service areas of 100 PHAs as too small, 81 as too large, and 32 as both too small and too large.[9] (HUD's service areas are left as is for 229 PHAs in this study's sample.)[10] Exhibit 3 shows the number of PHAs with HUD estimated service areas and revised service areas by different voucher-coverage bins. Row one shows that the proposed revision process increases the number of PHAs with service areas covering at least 90 percent of vouchers from 272 to 354, or from 72 percent of the sample to 94 percent.

Exhibit 3

Results Summary

Share of Primary PHA Vouchers Covered	HUD Estimated Service Areas	Revised Service Areas
90+	272	354
80–89	43	17
70–79	31	4
< 70	31	2

PHA = public housing authority/agency.

Sources: Voucher data is from the 2017 longitudinal administrative PIH Information Center dataset; HUD's Estimated Service Areas are from the e-GIS storefront; Revised service areas from the authors' estimations

Conclusion

Having good estimates of PHA service areas is critical for policy evaluation, development, and research. The authors believe that their adjustments to HUD's methodology yield more accurate service areas and hope that researchers and program administrators who need more accurate (although not necessarily perfect) information on any PHA's service area find these materials useful.

Notes

Additional details of the methodology and associated data files are available on HUD's geospatial database, the HUD-eGIS Storefront.

Acknowledgments

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[9] A PHA's service area is both too small and too large if it contains smaller jurisdictions that it does not serve and are served by other PHAs and if more than 10 percent of its voucher holders are outside the HUD estimated service area.

[10] One of the PHAs classified as too small, ID016, does not have any geographies that can be added, so its service area remains unadjusted.

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