DATA ANALYSIS METHODS DOCUMENT – HOUSING AFFORDABILITY & AVAILABILITY

Description

This dataset is the output of an analysis completed with a subset of the American Community Survey (ACS) Public Use Microdata Sample (PUMS) files for Mecklenburg County, NC.

- PUMS data can be accessed from the U.S. Census website: https://www.census.gov/programs-surveys/acs/data/pums.html
- PUMS Technical Documentation, including ReadMe files, Data Dictionary, and notes on the Accuracy of the PUMS may be accessed from the U.S. Census website: https://www.census.gov/programs-surveys/acs/technical-documentation/pums/documentation.html

Variables

Public Use Microdata Sample datasets require further analysis to better understand the topic of interest. For this dataset, various calculations and weightings are applied to classify the availability of and need for housing units along the affordability spectrum. This PUMS dataset for Mecklenburg County has been enriched with the following variables (found at the far right of the table):

Field Name	Description	Values / Key
WGTP_CLT	Housing Unit Weight for City of Charlotte	*1...9999* [Integer weight of housing unit]
AMI	Area Median Income for the household	*1* 30% and Below *2* 31 to 50% *3* 51 to 60% *4* 61 to 80% *5* 81 to 100% *6* 101 to 120% *7* Greater than 120%
AFF_ALL	The affordability level of the rental housing unit	*1* 30% and Below *2* 31 to 50% *3* 51 to 60% *4* 61 to 80% *5* 81 to 100% *6* 101 to 120% *7* Greater than 120%
AFF_VACS	The affordability level of the vacant rental housing unit	*1* 30% and Below *2* 31 to 50% *3* 51 to 60% *4* 61 to 80% *5* 81 to 100% *6* 101 to 120% *7* Greater than 120%
COST_BURDALL	Cost-burdened status of household	*0* No *1* Yes
YEAR	Year of the ACS PUMS data	*YYYY*

Methods

▸ Estimates for Mecklenburg County are apportioned to the City of Charlotte using the percentage of housing units by Public Use Microdata Area (PUMA) that are within the City of Charlotte. There are eight PUMAs that comprise Mecklenburg County. Apportionment factors retrieved from: http://mcdc.missouri.edu/websas/geocorr14.html.

▸ Each household is assigned to an AMI level based on household size (NP), total household income (HINCP), and the income limits for the corresponding year as established by the U.S. Department of Housing and Urban Development (HUD). Income limits retrieved from: https://www.huduser.gov/portal/datasets/il.html.

▸ Each rental unit is assigned as affordable to an AMI level based on gross rent (GRNTP), number of bedrooms (BDSP), and the household income adjustment factors by number of bedrooms as established by HUD. Adjustment factors retrieved from: https://www.huduser.gov/publications/pdf/CHAS_affordability_Analysis.pdf.

  ▸ For units that are "Occupied without payment of rent" (TEN=4), gross rent is not available. Instead, the calculation uses the total monthly utility cost (WATP/12 + FULP/12 + ELEP + GASP).

  ▸ For units that are "For rent" or "Rented, not occupied" (VACS=1, 2), gross rent is not available. Instead, the calculation uses Contract Rent (RNTP) plus an average utility adjustment factor calculated as the average total monthly utility cost for all rental units by year.

▸ For SPSS syntax, contact data@charlottenc.gov

Limitations

▸ This analysis relies on the definition of affordability from HUD, which defines an affordable dwelling as one that a household can obtain for 30 percent or less of its income. Affordability thresholds are tied to AMI. As Area Median Income rises across the region, a low-income household would be theoretically suited to a higher priced unit, even if their own household income did not change

▸ Rent is only part of the affordability equation – e.g., transportation costs ($11,900 on average in Charlotte) are typically a household's second largest expense, and location *within* Charlotte is not reflected in this analysis

▸ Due to lag in collection and release of PUMS data (PUMS estimates from the previous year are typically released in October), estimates may not reflect most current trends and market conditions

▸ Data in the American Community Survey (ACS) products are estimates of the actual figures that would have been obtained by interviewing the entire population using the same methodology, and are subject to both sampling error (deviation of the of the selected sample from the true characteristics of the population) based on probability sampling and nonsampling error (occurs based on other factors such as coverage, non-response, data processing, estimation and analysis). Estimates made with PUMS data are subject to additional sampling error because the PUMS consists of a subset of the full ACS sample.

▸ This analysis does not reflect:

  ▸ the use of Housing Choice Vouchers and other forms of tenant-based rental assistance

  ▸ need for housing for the homeless population (not reflected in PUMS dataset)

  ▸ the impacts of housing instability and the challenges that low-income households may have in accessing housing even when it is affordable and available

▸ For a comprehensive assessment of housing instability and homelessness in Charlotte and Mecklenburg County, see local research on the Charlotte-Mecklenburg Housing & Homelessness Dashboard at: https://mecklenburghousingdata.org/research/local-reports/)