

Mortgage Discrimination Measure Technical Notes



Background

Mortgage discrimination refers to lenders either denying a loan or processing a loan with a higher interest rate than the borrower qualifies for based on characteristics such as race or neighborhood. Experiencing mortgage discrimination increases risk of unstable housing. Housing instability is linked to a variety of poor health outcomes.

In the 1930s, the Federal Housing Authority (FHA) and the Home Owners Loan Corporation (HOLC) drew maps of neighborhoods in major cities across the United States. Neighborhoods with people of color were labeled “hazardous” - not a favorable neighborhood to issue home loans in - and colored red on the map. These maps were used by banks to deny home mortgage loans in neighborhoods of color. This process was called ‘redlining’ and is an example of structural and institutional racism in America with documented lasting public health impacts today (Lynch et al., 2021).

Under redlining, individuals were rejected for housing loans based on the racial composition of the neighborhood. These maps amplified and institutionalized existing racial discrimination through mortgage discrimination. This had a lasting impact on these neighborhoods and economic opportunities.

In 1968, the Fair Housing Act prohibited redlining. While the impact of redlining can still be felt, redlining data does not capture the extent of the impact of mortgage discrimination. The HOLC maps provide historical data for a small subset of cities across the United States. The Home Mortgage Disclosure Act (HMDA) of 1975 mandated data collection on all mortgage loan applications in the United States.

This measure uses HMDA data to measure modern mortgage discrimination statewide.

Literature

Historical lending discrimination has been linked to increased adverse health outcomes such as increased risk of preterm birth, cancer, and cardiovascular disease (Kreiger 2020, Beyer 2016, and Lee 2022). Recent studies have found that the maps drawn by the Federal Housing Authority in the 1930s have a correlation with bias in present-day mortgage lending (Namin et al., 2022).

Data Source

Home Mortgage Disclosure Act (HMDA) - Consumer Financial Protection Bureau:
<https://ffiec.cfpb.gov/data-browser/data>.

Methodology

The HMDA dataset contains information on mortgage lending activities in the US. This includes anonymous data on the sex, race, income, and census tract of mortgage applicants and borrowers. We created this data measure following the methods outlined in Lynch et al. (2021):

1. Join the HMDA dataset to 2010 Washington State census tracts. This removes any loan that did not originate in a WA state census tract.
2. Remove loans that do not meet the following criteria:

loan_purpose = Home purchase loans
occupancy_type == Principal residence
construction_method = Site built
derived_dwelling_category = Single Family (1-4 Units)
action_taken = Originated loans

3. Calculate the average loan rate, and the standard deviation. Remove any loan that is ≥ 3 standard deviations.
4. Remove census tracts with denominators < 10 . These are tracts with fewer than 10 home loans.
5. Calculate the percentage of loans in each census tract with a loan rate greater than 1.5 percentage points above the average daily rate (using the HMDA field: rate_spread).

References:

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