Do Appraiser and Borrower Race Affect Mortgage Collateral Valuation?

Brent W. Ambrose (Pennsylvania State University), James Conklin (University of Georgia), N. Edward Coulson (University of California, Irvine), Moussa Diop (University of Southern California), and Luis A. Lopez (University of Illinois at Chicago)

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Mortgage lenders often rely on estimates of the value of real estate that serves as collateral on loan contracts. Appraisers provide these estimates and, in the past, would factor in the owner's race and neighborhood's racial or ethnic composition. Since the Fair Housing Act of 1968, considering race and the racial/ethnic composition of neighborhoods in property valuations is no longer allowed. Despite this, reports of discrimination in appraisals continue to arise, with anecdotal evidence showing that minority homeowners experience lower property valuations (see the Denver 7 ABC News, Chicago Sun Times, and New York Times). This study provides new insights into the incidence of racial bias in the appraisal process and informs policy efforts toward racial equity.

We tease out the incidence and magnitude of appraisal bias in refinanced mortgages, which are the focus of most anecdotal evidence.

Appraisals for refinance mortgages are often opinion-based estimates of value because there is no new purchase price. In addition, an appraiser is likely to observe the race of the applicant for a refi mortgage because the borrower usually occupies the property and interacts with the appraiser during a refinance.

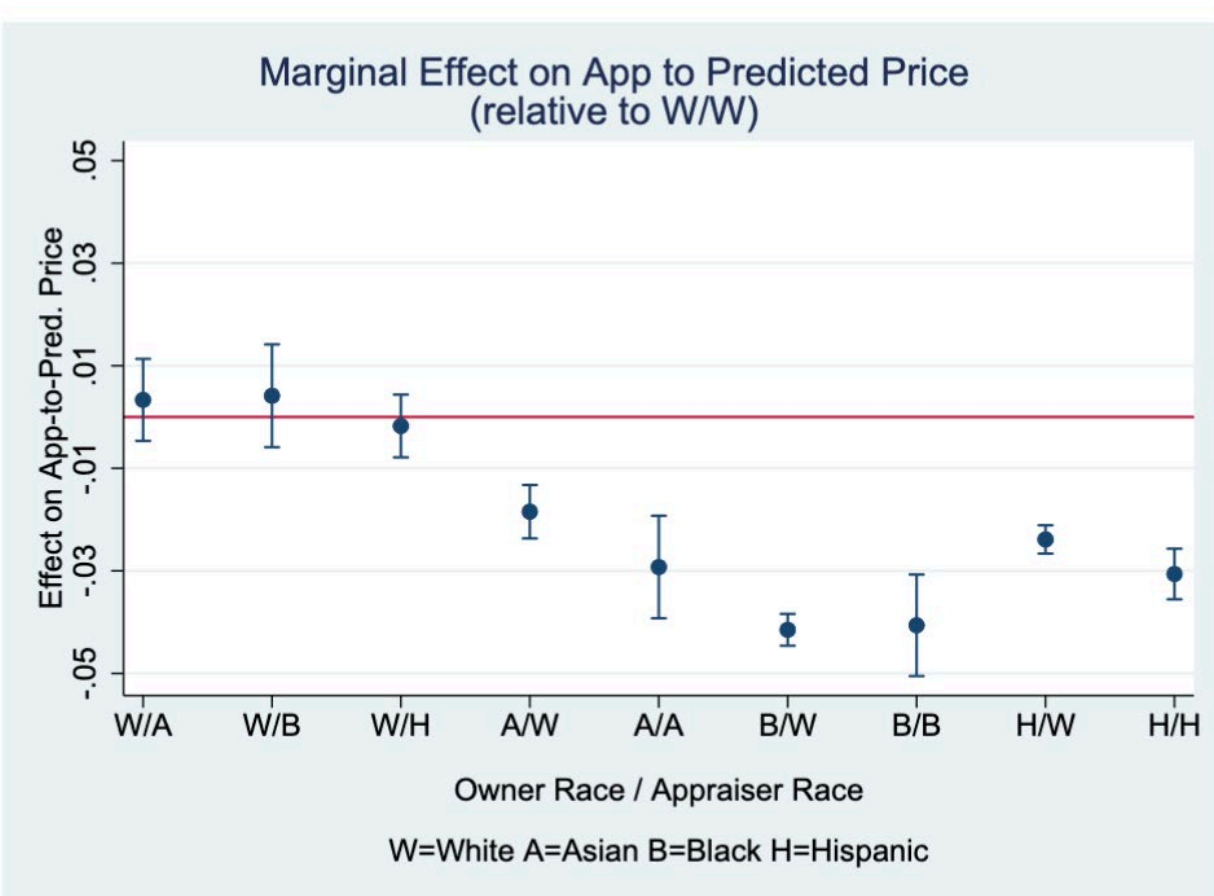
Our method involves benchmarking the appraised values to market value estimates (V) generated from an automated valuation model (AVM) and a two-stage procedure that accounts for property qualities that an AVM could oversee or value erroneously. This allows us to test whether the owner's race is related to *appraisal-to-*$\hat{V}$ ratios. If the *app-to-*$\hat{V}$ is systematically lower for Black and Hispanic-owned homes than White-owned homes, the analysis would suggest that there is a racial bias against minority households. However, examining whether the *app-to-*$\hat{V}$ is affected by the appraiser's race is also critical. If the *app-to-*$\hat{V}$ is lower for minority groups but the effect weakens when the appraiser and borrower share the same race, the results would suggest a possible homophily bias by individual appraisers.

We examine an administrative data set of over 220,000 mortgages refinanced by New Century Financial Corporation (NCEN) between 2000-2007.

These mortgages were appraised by over 34,000 individual appraisers. NCEN, which declared bankruptcy in 2007, was one of the largest subprime lenders in the housing boom of the early- to mid-2000s. The data contain information used by the lender during the loan underwriting process (e.g. FICO score, borrower income documentation, loan purpose), the appraiser and appraised value, and other details recorded under the HMDA reporting process such as the borrower's race. We impute the appraisers' race using a Bayesian-based algorithm that incorporates information on appraisers' first and last names. To benchmark the appraised values, we merged the NCEN data with data from ABSNet and HomeVal, which include AVM estimates built by Collateral Analytics.

We find that minority-owned homes generally receive lower valuations than White-owned homes by an amount that ranges from 1.8 to 4.2 percentage points.

To provide context, a property appraised at the average value of $278,000 for a White household would have been appraised at about $266,800 by a White appraiser if owned instead by a Black household. This would limit the capacity for a cash-out refinance (assuming a loan-to-value ratio of 78%) by about $8,740. One implication is that lower appraisals for Black households limit their access to the equity available in their homes. For liquidity-constrained Black borrowers with limited equity, these valuation discounts could also prevent refinancing, as this discount is larger than the fees typically associated with refinancing making it more difficult to take advantage of interest rate decreases or avoid the shock of an expiring teaser rate on an adjustable-rate mortgage.



However, our results point to an implicit bias against minority homeowners across all appraisers, regardless of race or ethnicity.

The magnitude of the *appraisal-to-*$\hat{V}$ discount experienced by some groups varies with the appraiser's race. For instance, Black owners receive on average a similar appraisal discount (4.2 vs 4.1 percentage points) from White appraisers as from Black appraisers. On the other hand, Asian and Hispanic owners receive lower appraisals from appraisers of the same race. The appraisal discount on Hispanic-owned homes appraised by White and Hispanic appraisers are 2.4 and 3.1 percentage points respectively, with the difference being statistically significant. Similarly, Asian homeowners receive a 1.8 percentage point discount from White appraisers and a 2.9 percentage point discount from Asian appraisers.

Implications

- The results provide evidence of systemic racial bias in appraisal valuations regardless of the appraiser’s race, which calls for a review of how homes are valued in practice.
- Improving diversity in the appraiser workforce alone may not be effective at eliminating racial bias in valuations.
- AVMs along with information about the property, borrower, and appraiser may help detect patterns of systemic racial bias.