Examining Racial Disparities in Maryland's Housing Market

An analysis of racial disparities in appraisals, lending, and community investments in Maryland

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Executive Summary

This study, requested by the Maryland Legislature via 2021's Senate Bill 859, provides an analysis of housing values, appraisals, and refinance rates and assesses the impact of investments and policies on housing in the State's various communities. This study accordingly focuses on differences in housing market characteristics and State investments in majority Black, Indigenous, and People of Color (BIPOC) areas versus majority-white areas across Maryland. The literature review included in this report shows the impact of historic patterns of segregation and discrimination on housing values, appraisals, and refinance rates, and the impact of public investment on housing markets. The analysis section of the report reviews multiple sources of quantitative data, including data on mortgage applications and appraisals, data on State investments. It also includes a program review of Maryland's Mortgage Program (MMP) with an emphasis on examining racial disparities.

The analysis of available data indicates that Maryland's housing markets continue to exhibit the legacy of discrimination, segregation, and redlining. BIPOC borrowers and homeowners in Maryland face disproportionate difficulty obtaining loans, lower home values, and disparities in appraisal values. These difficulties are geographically concentrated in areas of the state that are disproportionately home to BIPOC groups.

Our analysis of State investment data shows no pattern of discrimination in the allocation of funds for programs examined in this analysis. Further, an in-depth review of the Department of Housing and Community Development (DHCD) programs show that the majority of program funds are directed to the BIPOC areas, reflecting program goals. Data limitations, due to privacy restrictions regarding some programs, did not allow an examination of disparities in loans, grants, or vouchers at the individual level, and thus it is not possible to assess individual level cases. These findings matter because housing market data shows that housing wealth disparities, on average, are a challenge for Maryland's BIPOC residents. This suggests that additional public dollars to address the state's history of segregation and discrimination in the housing market may be required.

Our policy review of the Maryland Mortgage Program (MMP) found that it is a much-needed tool for low-income BIPOC Marylanders who are seeking to obtain mortgage loans. Considering the additional barriers that BIPOC borrowers face when attempting to obtain a mortgage, the MMP offers an avenue for homeownership that might not otherwise be available by conventional means. However, there are several ways that the program could be improved in order to expand its impact and ensure that it continues to reduce racial disparities and inequities in Maryland's housing market.

These results are consistent with other studies conducted at the national level and show that Maryland, despite its economic prowess, is still deeply affected by nationwide challenges in the housing market that affect various BIPOC groups. In Maryland, this is particularly relevant because the 2020 census indicated that more than half of the state's population identifies as a member of a BIPOC ethnic or racial group. Without intervention, discrimination and inequity in the housing market may result in a continued disparity in wealth and economic advancement for BIPOC groups.

A. Introduction

During the 2021 legislative session, the Maryland Legislature passed Senate Bill 859, "Appraisal Gap From Historic Redlining Financial Assistance Program – Establishment," which establishes a new program within the Maryland DHCD. With funding, this new program will allow DHCD to make financial assistance available to affordable housing developers working in low-income census tracts. The bill further asked DHCD to *"conduct a study, aggregated by race, ZIP codes, and census tracts, of housing values, appraisals, and refinancing rates across the State over the past 30 years, including the impact of State and federal policies, such as infrastructure (road, park, and water and sewer) and other investments, on those communities,"* and to report those findings to the Governor and the General Assembly (S.B. 859).

This report, produced by the National Center for Smart Growth at the University of Maryland, College Park (NCSG) with support from Enterprise Community Partners and Clower & Associates (the project team), summarizes the findings of this study. During the fall of 2022, the project team conducted a multi-phase research analysis on these subjects, which included a literature review and both quantitative and qualitative research. Our findings show that there is evidence that the legacy of historical discrimination and ongoing racial disparities in the housing market continue to impact many BIPOC communities across Maryland. The reasons for these inequities are numerous and linked to deeply rooted racial inequities that spread far beyond the housing market.

The project team emphasizes that the scope of research herein was relatively limited. Due to a lack of available data, we have limited this study to assess the most recent ten-year period with some exceptions. We use numerous variables, such as appraisal data, tax-assessed values, census reported housing values, and loan data from the Home Mortgage Disclosure Act (HMDA) to assess inequities in the housing market. We also analyze programmatic data provided by DHCD and several other State agencies to assess patterns of spending relative to our other findings. We caution that our data analyses in this study are not causal. We have analyzed patterns in data and have found evidence of inequities, but we have not discovered proof of discrimination or exclusion, particularly with relevance to State investment.

This study is organized as follows. The next section presents a national-level literature review that details the connections between historical policies and racial gaps in housing wealth, appraisals, and values; and how these factors influence the housing market today. The second section presents a quantitative analysis of Maryland's home values, home appraisals, and home financing to determine the existence of racial disparities in Maryland's housing market, specifically. The third section presents our qualitative analysis of DHCD homeownership programs centered on racial disparities and equity. The next section presents our quantitative data analysis which tests for evidence of racial and ethnic discrimination in how State investments are allocated in various communities. The final section offers our conclusions by weaving together perspectives from the literature review, data analysis, and the program review. The report concludes with references and an appendix containing data notes and additional tables.

B. Literature Review

For decades, disparities in the valuation of residential properties by race and ethnicity have been observed and quantified across the United States. Prior to the passage of the 1968 Fair Housing Act, such differences were the intentional products of policies and practices that sought to segregate BIPOC residents and reduce their opportunities for wealth accumulation and social advancement (Rothstein, 2017; Korver-Glenn, 2021). Even after overtly racist behaviors in housing markets were rendered illegal, multiple studies still suggest that racial gaps in home values have persisted and even grown (Howell & Korver-Glenn, 2018; Freddie Mac, 2021; PAVE, 2022). By one estimate, the cumulative cost of undervalued homes in majority-Black neighborhoods alone is $156 billion (Perry et al, 2018). As Squires and Goldstein (2021) note, “undervaluing homes in non-white neighborhoods is a longstanding feature of the US housing market.”

Reduced wealth accumulation among individual homeowners is far from the only impact of racial disparities in housing values. Lower housing values can jeopardize efforts to qualify for or refinance a home mortgage when the purchase or cash out value is substantially higher, thus requiring less affordable loan terms (e.g., higher down payment or interest rates). In some cases, a loan on a lower-valued home may be denied altogether, preventing that family from accessing homeownership (Fout & Yao, 2016; Bayer et al, 2017; Zonta, 2019). When considered alongside other barriers to accessing mortgages among BIPOC homebuyers – such as lower incomes, low or missing credit scores, and fewer available sources for down payment funds – housing value disparities can contribute to lower homeownership rates for BIPOC households (Desilver & Bialik, 2017).

Compounded across entire neighborhoods, reduced home values also often attract less public and private investment relative to locations with higher housing values (Perry et al, 2018; Zonta, 2019). This reduces access to many amenities, including better educational and transit options, employment and retail options, and provision of public services such as parks and libraries.

Several researchers have sought to identify the causes of racial disparities in housing values. A common thread through these studies is the role of policy at all levels of government in both facilitating disparities and failing to ameliorate them and their consequences (Rothstein, 2017; Howell & Korver-Glenn, 2018; Perry et al, 2018; Korver-Glenn, 2021). These policies (or lack thereof) have allowed and even encouraged racial biases to infiltrate all aspects of the housing valuation process, from tax assessments to loan appraisals, sales prices and value appreciation, such that systemic disparities are all but accepted as the norm in most real estate transactions (Flippen, 2004; Korver-Glenn, 2021; Squires & Goldstein, 2021). Any effort to remedy this long-standing harm to BIPOC communities, therefore, requires a better understanding of what these policies are, how they impact housing values, and what options are available to mitigate and reverse their effects.

How Policies Contribute to Racial Disparities in Housing Values

The mechanisms through which policies influence housing values include both historical and current regulatory processes. Historically, the legacies of legally racist practices such as redlining, racialized zoning, restrictive covenants, and professional standards that explicitly required discriminatory pricing of homes to discourage racial integration remain visible in property valuations today (Korver-Glenn, 2021). Using past sales prices as a benchmark for future valuations, for example, bakes in the lower values ascribed to homes in legally segregated neighborhoods (Korver-Glenn, 2021). Indeed, median home values in formerly redlined neighborhoods today are still less than half of those in neighborhoods that received the highest ratings (Mikhitarian, 2018). Houses in traditionally BIPOC communities were also generally of lower quality and had higher levels of exposure to environmental and industrial hazards, which limits their appeal to modern buyers. As such, homes in majority-BIPOC neighborhoods have not appreciated at the same rate as those in mostly white neighborhoods, which further widens existing racial value gaps (Zonta, 2019).

Though these overtly racist practices were outlawed over 50 years ago, policies continue to allow for the devaluation of homes in majority-BIPOC neighborhoods through a lack of standards and regulations to prevent perpetuation of existing disparities. This includes insufficient enforcement of fair housing laws at the federal and state level, the permissible use of proxies for race – such as location and income level – as determinants in setting house values, and considerable weight given to subjective factors concerning the perceived desirability of a home to a typical buyer, who is generally assumed to be a white, middle-class household who prefers to live in a socially homogeneous neighborhood (Korver-Glenn, 2021; Squires & Goldstein, 2021; PAVE, 2022).

Current policies also do little to correct for past practices. Nationally, public spending on schools, infrastructure and other amenities, for example, continues to be disproportionately allocated to higher-income and higher-value neighborhoods, which correlate with higher shares of white households (Zuk et al, 2015). What public funds are targeted at majority-BIPOC neighborhoods, meanwhile, are either too small relative to the need (Theodos et al., 2019) or may become catalysts for gentrification and displacement (Zuk et al, 2015).

Evidence of Racial Disparities in Housing Values

The consequence of these policy actions (and inactions) is disparities observed between the housing values of white and BIPOC homeowners. These disparities persist even when other factors that contribute to housing values – such as neighborhood characteristics, proximity to transit, quality/age of housing, and house amenities – are taken into consideration. Indeed, some evidence suggests that, rather than moderating with time, these gaps have expanded since the Fair Housing Act made overt discrimination in housing markets illegal (Howell & Korver-Glenn, 2018).

Often, disparities in housing values are observed by using neighborhood racial composition as a proxy for individual owner race and ethnicity, which is generally difficult to capture in anything more than anecdotal reports. Such analyses also suggest that concentrations of certain racial or ethnic groups in a neighborhood are themselves a signal of the value of homes in that neighborhood. Korver-Glenn (2021), for example, finds that real estate professionals routinely use a white, middle-class, homogeneous neighborhood standard when considering the desirability of neighborhoods. Her analysis reveals the rampant and myriad ways that (mostly white) developers, real estate agents, mortgage brokers, and home appraisers capitalize this standard when assessing and pricing homes. The Federal

Housing Finance Agency (FHFA) also observed race signaling in its review of appraisal reports, which included numerous examples of appraisers noting racial and ethnic features of neighborhoods as part of their valuation process, despite industry regulations prohibiting the use of such factors in their considerations (FHFA, 2021).

Quantitative analyses of housing value disparities corroborate these findings. For example, a recent nationwide study by Freddie Mac (2021) found that between 2015 and 2020, 12.5% of homes sold in neighborhoods with a majority-Black population were appraised for less than their contract price. The share was even higher for majority-Latinx neighborhoods, at 15.4%, while only 7.4% of homes in majority-white neighborhoods were appraised below their sales price. Below-price appraisals were even more common in tracts with at least 80% Black or Latinx populations, at 13.3% and 16.7% respectively. Howell and Korver-Glenn (2022), meanwhile, estimated the dollar value of the gap between appraised values of homes in majority-white and majority-BIPOC neighborhoods at $371,000 in 2021, which was 75% greater than it was in 2013. In one of the few analyses to consider value gaps at the municipal level, Anderson (2021) found homes in primarily Black neighborhoods in Baltimore, MD, specifically were undervalued by 45% relative to similar homes in primarily white neighborhoods, for a value gap of over $53,000.

Notably, there is one form of house valuation that tends to overvalue BIPOC homes. Recent analyses have found that, after adjusting for location and structure characteristics, homes in majority-BIPOC neighborhoods tend to have property tax assessments that are higher than similar homes in majority-white neighborhoods (Drew et al, 2020). As a result, BIPOC homeowners pay more in property taxes than white owners, despite generally receiving fewer or lower-quality municipal services (Avenancio-León & Howard, 2020). These disparities are even more pronounced once various tax relief and abatement options are applied, which disproportionately favor higher value homes in majority-white neighborhoods (Ihlanfeldt & Rodgers, 2022).

Potential Policy Remedies for Racial Disparities in House Values

To address the pervasiveness of observed disparities in house values, several policy-based solutions have been proposed. Most would operate at the federal level, using a combination of monitoring and direct intervention to narrow value gaps. Some state and local government intervention will also likely be needed, particularly with respect to regulating the practices of state-certified real estate professionals. Truly successful policy intervention, however, would require both federal and state/local governments to work in concert, as well as in collaboration with industry and fair-housing organizations nationwide (Korver-Glenn, 2021).

The issue of mortgage appraisal disparities has already garnered considerable governmental attention, leading to the formation of the federal Property Appraisal and Valuation Equity (PAVE) task force. The task force released an action plan in April 2022 that outlines several commitments the Biden Administration intends to take towards reducing appraisal gaps, including strengthening guardrails against unlawful discrimination, enhancing fair housing enforcement mechanisms, and supporting increased diversity in the appraisal industry (PAVE, 2022). Notably, many of the PAVE action items rely on coordination with state licensing boards and the appraisal industry, suggesting federal action alone is limited in its ability to fully rectify disparities.

One of the specific proposals suggested in the PAVE action plan concerns the use of technology to reduce the effect of individual biases in assessing home values. Automated valuation models (AVM), for example, use data on a home's characteristics and sales of comparable homes in mortgage appraisals, either in place of or as a check against in-person valuations that may implicitly factor neighborhood racial composition into their assessments. Indeed, Fannie Mae and Freddie Mac have already proposed expanding the use of AVMs and other digital tools as part of their equitable housing finance plans. Yet AVMs can still replicate past devaluations of homes in majority-BIPOC neighborhoods when using past sale prices of comparable homes in their calculations (Neal et al, 2020). Policymakers should therefore be cautious and seek more advanced models that can adjust for past inequities before touting these as a solution to housing value disparities.

Beyond greater oversight of real estate professionals through state licensing and regulations, however, there have been few direct interventions suggested below the federal level. One of the more radical proposals to surface involves so-called 'reparations' paid to BIPOC households in response to decades of explicit and legal discrimination in housing markets. Evanston, IL, is among the first municipalities to pass and implement such a program, by making grants of up to $25,000 available to 16 eligible BIPOC households (i.e., those who can demonstrate a direct connection to the discriminatory effects of past policies while living in Evanston) to subsidize home repairs or down payments (Nakamura, 2022). Similar policy efforts have begun to take shape in other cities, such as Asheville, NC, and Santa Monica, CA.

Our literature review clearly demonstrates the origins and continued existence of racial disparities in the housing market at the national level. The next section looks at several key housing data indicators for the existence of racial disparities in the State of Maryland.

C. Quantitative Data Analysis

The project team combined multiple sources of data to undertake the study asked for by the legislature. The analysis can be split into four broad categories:

- Analysis of home value data
- Analysis of home appraisal data
- Analysis of home financing data
- Analysis of State investments

These four categories address the section of the bill that asks for analysis of home values, appraisals, financing and refinancing rates, and the impact of policies on communities[1]. The first subsection provides context by reviewing home values in Maryland and their general trends disaggregated by race. The next section covers data on appraisals, home loan financing and refinancing. The final subsection examines data on State investments in communities, with particular attention paid to majority-BIPOC areas and areas of low home value identified in the previous sections.

Majority-BIPOC Census Tracts

The project team has, in most cases, used the census tract level of geography for aggregate analysis of trends in this report. Census tracts are divisions of counties that hold about 4,000 people and their size is contingent on geography and population density. Tracts are a preferred unit of analysis for socioeconomic studies[2]. Certain program data is only geographically defined at the county level, and in those cases, the State's 23 counties and Baltimore City were used for analysis. The recent 2020 census recorded the population, by race, of each census tract in Maryland. We have statistically analyzed the population of Maryland and have divided the census tracts into two categories:

- Majority-BIPOC Census Tracts - 50% rule: tracts where more than 50% of the population recorded their race as something other than white (alone) – Figure C.2
- 80% Majority-BIPOC Census Tracts: tracts where more than 80% of the population recorded their race as something other than white (alone) – Figure C.3

Maryland is a diverse state (see Table C.1) and because of this, many tracts qualify to be counted in each majority-BIPOC category. 690 census tracts in the state are majority-BIPOC, which is 49.1% of tracts in Maryland. 381 tracts are majority-BIPOC at the 80% threshold level. These 80% tracts are mostly located in two jurisdictions: Prince George's County (186 tracts) and Baltimore City (112 tracts). These tracts are spatially clustered in

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[1] The study team and MD State Agencies were unable, given the timeline and scope, to gather a complete 30-year dataset for state and federal investments for analysis. Much of this data is not digitized or geographically coded.

[2] Census tracts are much finer grained than zip codes, and government data is not typically aggregated at the zip code level. Further, zip codes vary extensively in population. Note, to simplify comparisons across datasets the study team used 2010 census tract boundaries for data analysis.

those areas, and only one 80% tract is outside Central Maryland. The histogram (figure C.1) following the table shows that there is a cluster (274 tracts) that have a non-white share of the population below 10%, matched by a cluster of tracts that have a non-white share of the population above 70%. This indicates that spatial segregation of the population by race in Maryland is still very much a factor in the 2020s.

Table C.1. Maryland Population by Race, 2020

	Population	Share of total Population
Maryland Population	6,177,101	100%
White, non-Hispanic	2,913,744	47.2%
Non-white	3,263,357	52.8%
Black	1,922,232	31.1%
Hispanic	729,731	11.8%
Native American	58,802	1.0%
Asian/Pacific Islander	481,476	7.8%
Hawaiian	4,597	0.1%
Two or more races/other	66,519	1.1%

Note: Hispanic individuals can be of any self-described race; the other categories are self-identified as non-Hispanic and are mutually exclusive.

Source: Brown University LTDB tabulations of 2020 Census Data.

Figure C.1. Number of Census Tracts by Share of Population that is White, 2020

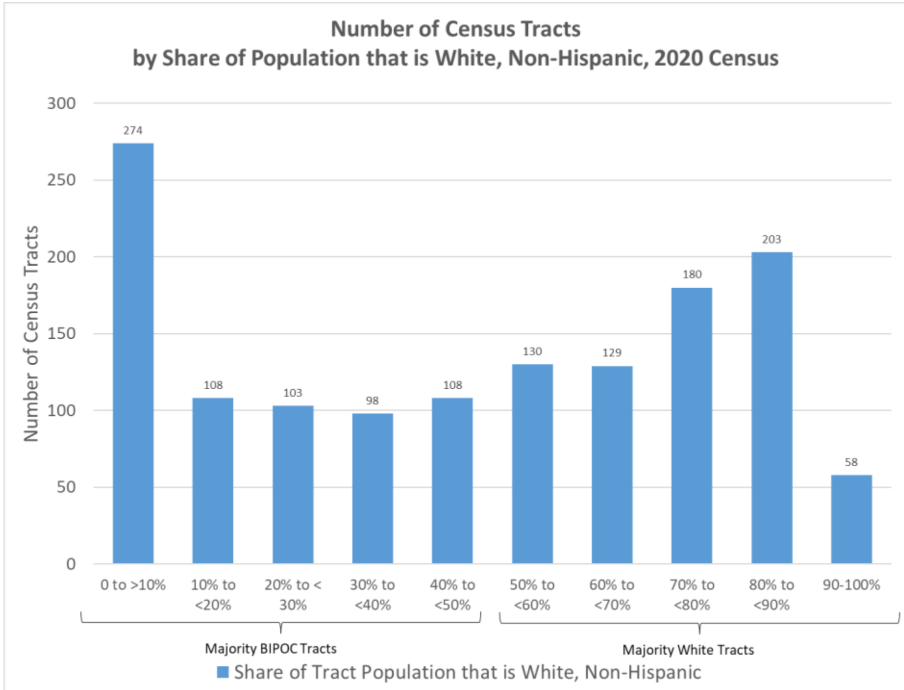


Figure C.2. Majority BIPOC Census Tracts of Maryland, 2020

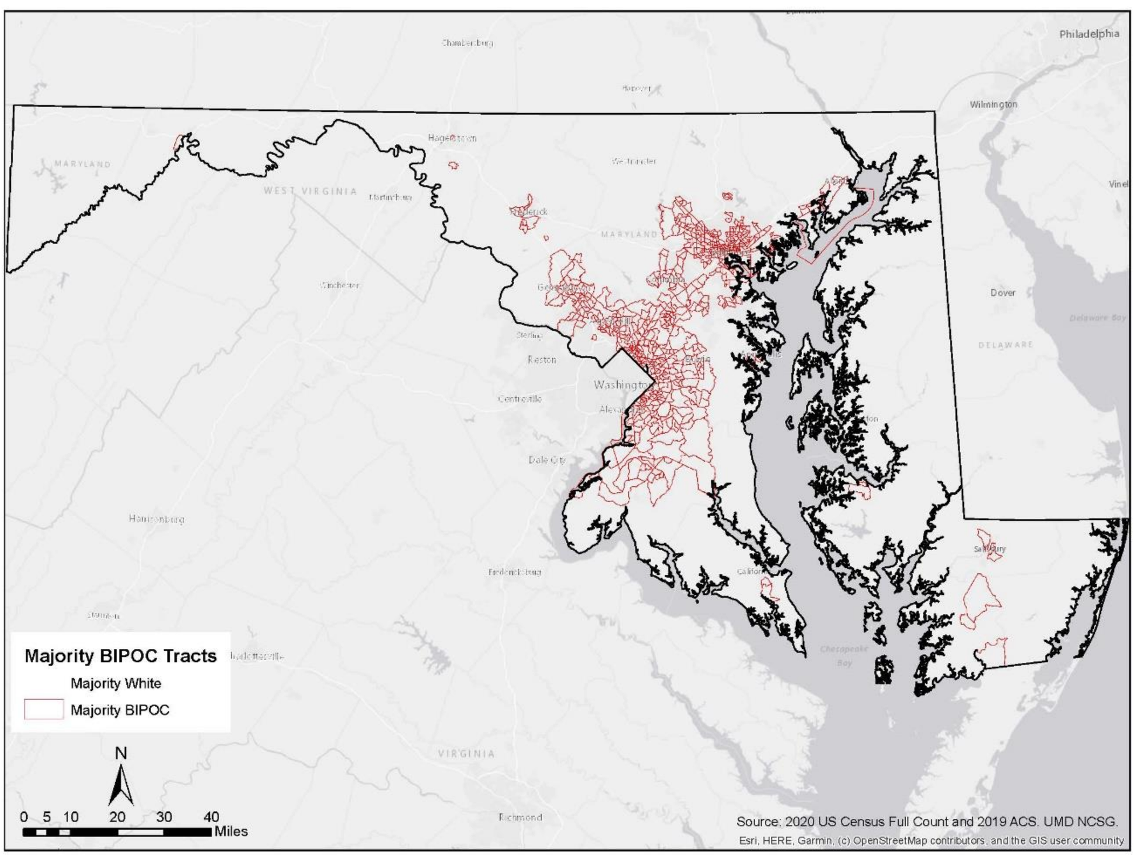
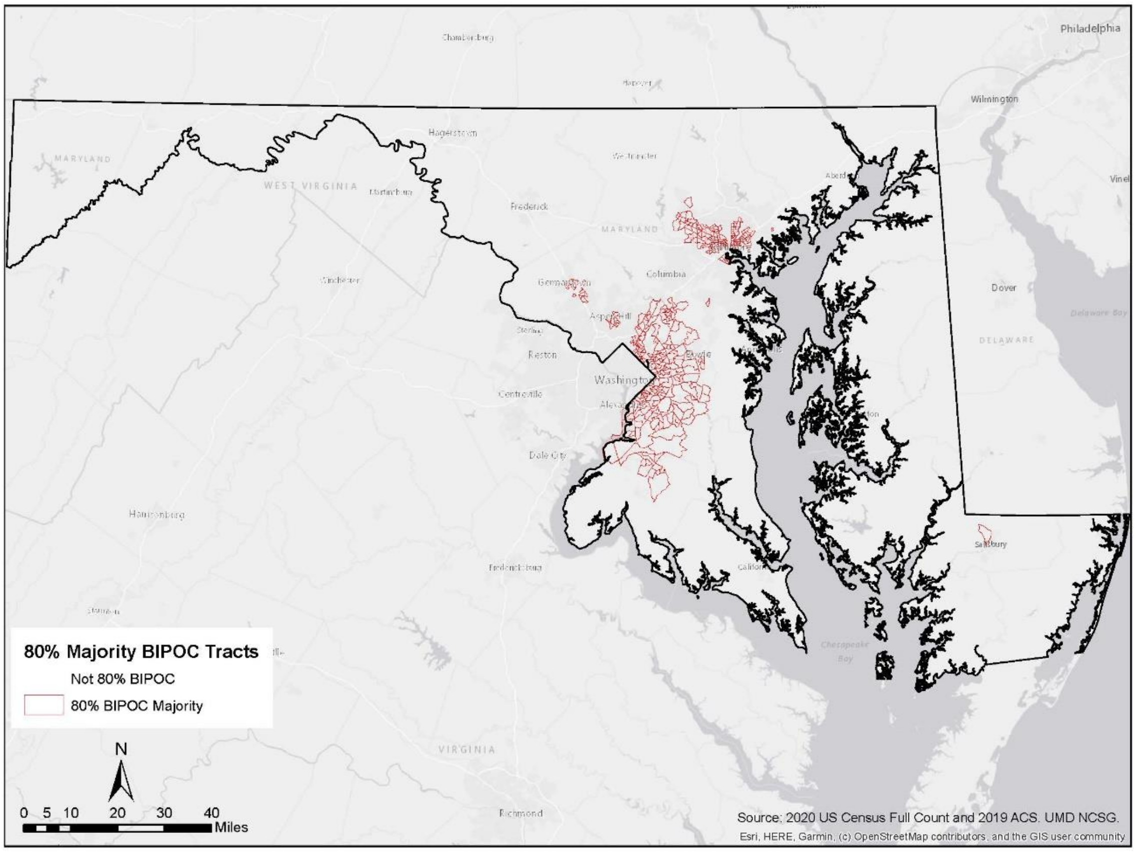


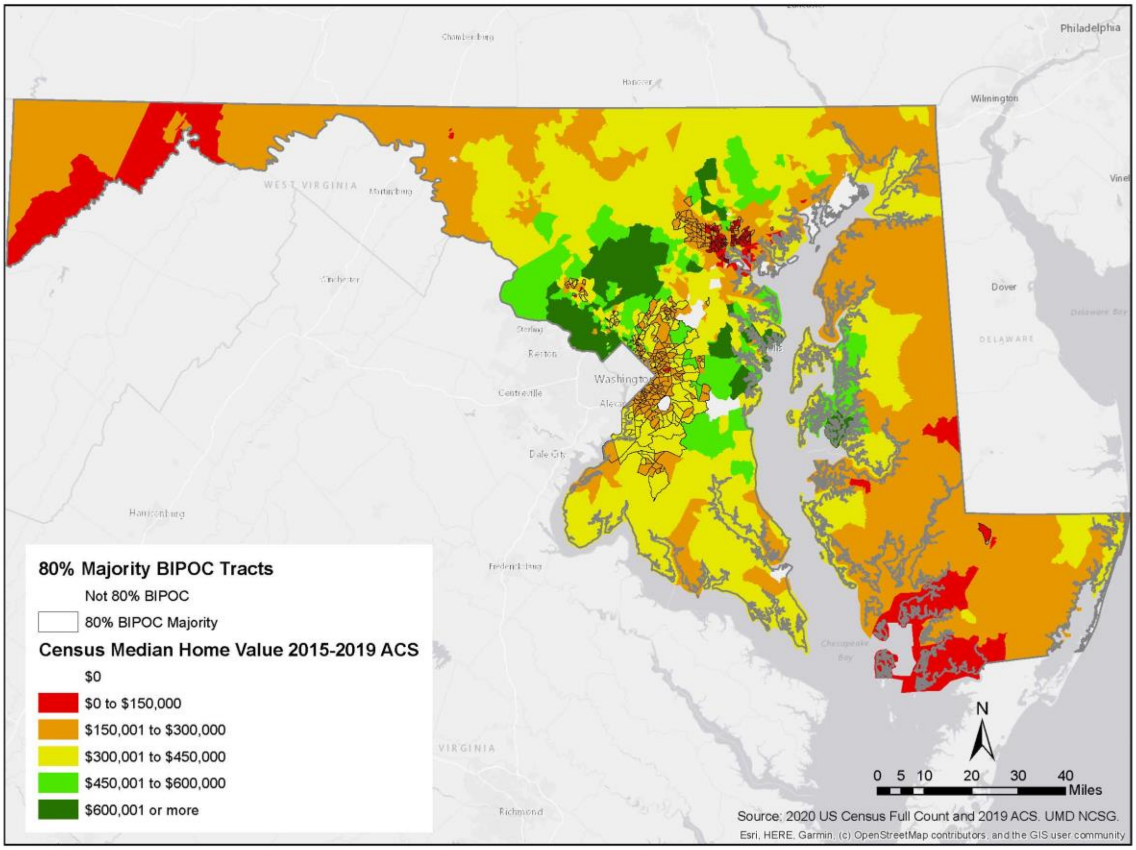
Figure C.3. 80% Majority BIPOC Census Tracts of Maryland, 2020



Housing Values

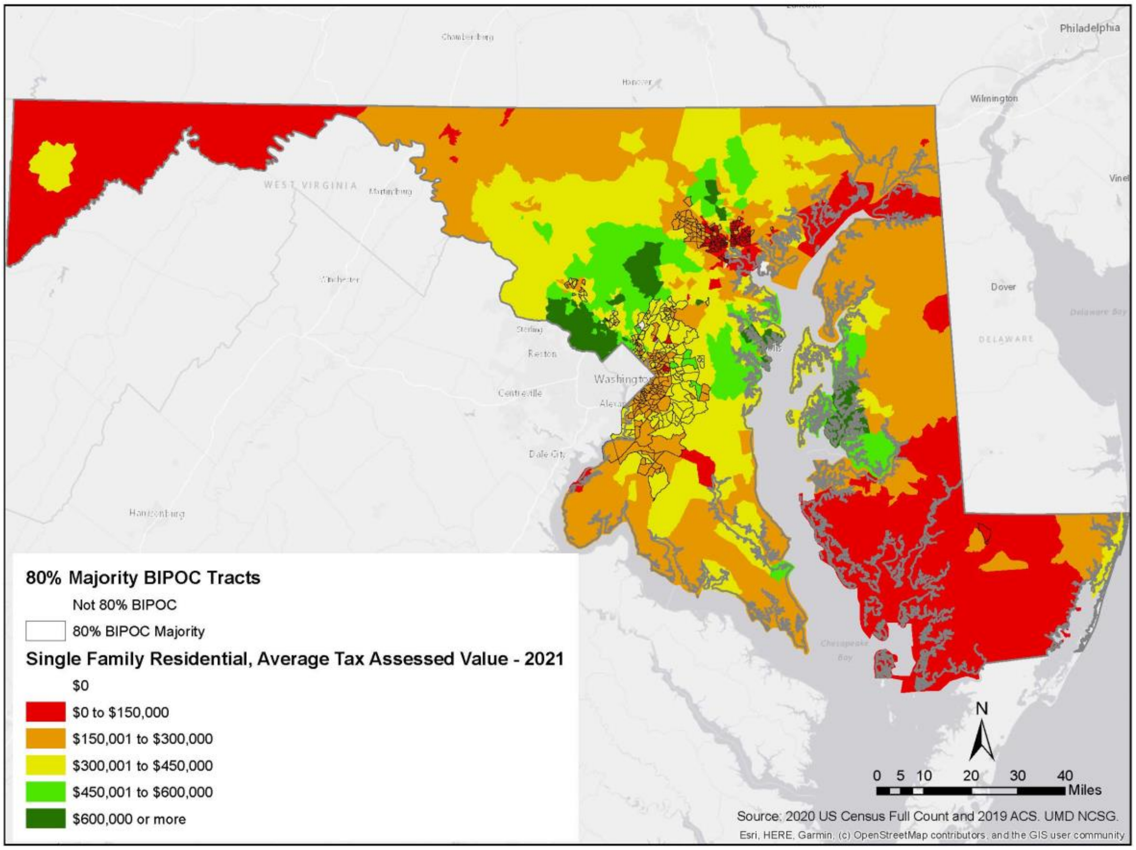
Home values in Maryland are significantly higher than the national average - as much as $100,000 more according to the 2020 State Housing Needs Assessment (National Center for Smart Growth, 2020). These high home values are due to Maryland's strong economy, decades of steady population growth, and the proximity of much of the state's housing, jobs, and population to the major metropolitan areas of Baltimore and Washington. These higher-than-average home values are not, however, uniformly spread across the state. The state's more rural sections like southern Maryland, the Eastern Shore, and Western Maryland generally have much lower home values due to a relative lack of economic connections to the state's thriving major metropolitan areas. As the map below (Figure C.4) of Census-reported median owner-occupied home values shows, there are two other notable areas in the state where values are generally lower.

Figure C.4. Census Median Home Values in Maryland, (2015-2019 ACS)



Those areas are Prince George's County, just east of Washington DC; Baltimore City; and parts of Baltimore County. These areas have large, contiguous swathes of lower median home values ($300,000 or less), and further, these areas are identifiable as the census tracts that are 80% or more majority-BIPOC. The same pattern is visible in the state's own tax assessment data, which is produced in the map below for single-family attached and detached homes only (Figure C.5).

Figure C.5. SDAT Single Family Residential, Average Total Tax Assessed Values, 2021



These patterns show that Maryland is not an exception to the national trends covered in the literature review: homes in Maryland are significantly less expensive in majority-BIPOC areas. Over the past decade, home values have steadily increased in Maryland despite the after-effects of the Great Recession and the COVID crisis. Below, Table C.2 shows the median value of owner-occupied housing across the state from 2000 to the 2015-2019 5-year Census American Community Survey.

Table C.2. Inflation adjusted averages of median home value, census tract level, Maryland 2000-2019

	2000	2008-2012	2015-2019	2000-2019 Change	2000-2019 Percent Change
Statewide Average	$218,318	$338,095	$311,295	$92,978	42.6%
Majority-BIPOC (50% or more)	$188,123	$287,479	$264,369	$76,246	40.5%
Majority-white	$247,416	$386,874	$356,518	$109,102	44.1%
80% Majority-BIPOC	$169,369	$253,277	$225,644	$56,275	33.2%
Less than 80% BIPOC	$236,512	$369,622	$343,133	$106,620	45.1%

Source: NCSG analysis Brown University LTDB tabulations of US Census Data

The statewide average at the tract level has increased by nearly $100,000, after adjusting for inflation, since the year 2000. This increase masks trends that differ between the majority-white and majority-BIPOC tracts. Majority-BIPOC areas have significantly lower home values. This is especially true in 80% majority-BIPOC areas, where values began in the year 2000 about $50,000 under the state average and ended about $85,000 under the state average. The rate of change in majority-BIPOC areas, while positive, did not exceed the rate of change in majority-white areas. This slower rate of positive change has led to continued expansion of the existing gap in real estate valuation between majority-BIPOC and majority-white areas of Maryland.

FHFA Appraisal Data

In late October 2022, the Federal Housing Finance Agency (FHFA) released a new public dataset called the Uniform Appraisal Dataset (UAD)[3]. This data is the first publicly available dataset of aggregate statistics on home appraisal records, available only for the years 2013-2021. There are 46 million appraisal records in total nationwide, gathered from

[3] https://www.fhfa.gov/DataTools/Pages/UAD-Dashboards.aspx

standardized appraisal industry forms that are provided to Fannie Mae and Freddie Mac for government-backed conforming mortgage loans.

Several caveats apply to this data. First, these appraisal records are only for single family homes and exclude condominiums, manufactured housing, and multifamily structures. Second, this dataset only includes traditional, human-conducted appraisals, and thus it excludes automated appraisals conducted with AVM models. AVM appraisals accounted for up to a third of all appraisals during the year 2021 (Bosshardt et al. 2021). Thus, this data is representative only of single-family homes that did not have an automated appraisal, which may skew results if those homes are not representative of the average home sold in Maryland.

The analysis team had limited ability, given the late availability of the data, to investigate patterns of disparity by race in new purchase loans in the 2021 UAD dataset for Maryland. This data is aggregated at the census tract level. Results from this analysis show that patterns of appraisal disparities by race in Maryland do not deviate from those found nationally.

The table below (Table C.3) displays the mean of appraised values, aggregated by census tract type, for the year 2021. The appraisal data averages mirror the averages from the census and from the state tax assessments: home values are much lower in majority-BIPOC tracts across the state. This data presents a simple average and does not control for the age of the home, access to amenities, quality of schools, or other factors that may determine home value. BIPOC groups in Maryland are on average less wealthy and have lower incomes, so the homes they own are on average less expensive. However, as the literature review explained, differences in wealth and income across racial groups do not fully account for these differences in average home value. This gap in values is also partially due to the legacy of segregation, historically discriminatory public and private sector policies, and continued racial bias in home appraisals, sale prices, and tax assessments.

Table C.3. Maryland - Mean Appraised Value - Census Tract Average - 2021

Tract type	Mean Value	Tract type	Mean Value
Not 80% majority-BIPOC	$440,433	Majority-white	$470,782
80% majority-BIPOC	$272,587	50% majority-BIPOC	$320,412
State Average	$399,012	State Average	$399,012

Source: NCSG Analysis of FHFA UAD Data

The next table below (Table C.4) displays the percent of new purchase loans for which the property appraisal value was lower than the contract price. This is more commonly referred to as an "appraisal gap," which, in the event of a home sale, must be covered in cash by the buyer if the seller is unwilling to concede on price. Lenders are generally not willing or able to lend amounts above the appraised value. The table shows that the existence of an appraisal gap was more likely in majority-BIPOC census tracts, at both threshold levels, across Maryland in 2021. These results for Maryland are similar to the national patterns discussed in the literature review.

Table C.4. Maryland - Percent of Appraisals Below Contract Price - Census Tract Average - 2021

Tract type	Percent	Tract type	Percent
Not 80% majority-BIPOC	11.4%	Majority-white	10.5%
80% majority-BIPOC	15.4%	50% majority-BIPOC	14.5%
State Average	12.4%	State Average	12.4%

Source: NCSG Analysis of FHFA UAD Data

Another way to identify disparities in appraisals is to investigate the percent of appraisals that indicate a value above the contract price. When this occurs, it suggests that appraisers are over-valuing homes relative to contract prices. This is the opposite of an appraisal gap. In Table C.5, below, it is apparent that it is less likely for an appraisal to come in above the contract price in BIPOC areas. In majority-white areas, well over half of appraisals in 2021 came in over the contract price, meaning home sale transactions are much more likely to proceed without financial setbacks.

Table C.5: Maryland - Percent of Appraisals Above Contract Price - 2021

Tract type	Percent	Tract type	Percent
Not 80% majority-BIPOC	53.4%	Majority-white	56.8%
80% majority-BIPOC	35.6%	50% majority-BIPOC	40.5%
State Average	49.0%	Total Loans	49.0%

Source: NCSG Analysis of FHFA UAD Data.

These patterns found through initial analysis confirm that BIPOC groups in Maryland are more likely to experience challenges in the appraisal process than whites. The absolute causes of this are not explained by the data, and further investigation is recommended. However, the project team expects that the causes identified in the literature review are contributing to these challenges.

Home Mortgage Disclosure Act

The Home Mortgage Disclosure Act (HMDA) requires mortgage lenders to publicly report loan-level data on mortgage transactions. Digital public records of this data, collected and published by the Consumer Financial Protection Bureau (CFPB), are available from 2007 to 2021[4]. The HMDA data can be aggregated at the census tract and county level, with characteristics such as race, loan amount, income, and more available for comparison and analysis. The project team selected data from 2011, 2016 and 2021 to analyze recent patterns in Maryland's mortgage market. Variables of interest for this discussion are interest rates for mortgages[5], loan to income ratios, shares of loans that are refinance loans, and the share of loans denied and reasons for denial. Data can be analyzed separately for new purchase loans or refinance loans. Summary data for all of these variables can be tabulated by racial group at either the census tract, county, or statewide level[6]. The following section discusses trends for each of these variables.

Interest Rates

At the statewide level, there was little variation by race in average interest rates for new loans or refinance loans in 2021. These rates varied by roughly +/- 0.05% from the state average. When disaggregated to the county level, there is slightly more variation, but little deviation by more than 0.1% from the average. The appendix of this report contains this table and other tables not expressly mentioned in the text.

More variation exists in interest rate averages when comparing majority-BIPOC to majority-white areas. For example, average interest rates were up to 0.28% higher for borrowers in 80% majority-BIPOC areas. This could be due to a number of factors, such as the debt-to-income ratio or credit score of the borrower, but it illustrates that a gap in financing cost is present between these types of census tracts. This makes borrowing more expensive in areas which already have lower home prices, further burdening those borrowers relative to wealthy areas and potentially limiting home price appreciation, perpetuating the racial wealth gap.

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[4] https://www.consumerfinance.gov/data-research/hmda/

[5] Only available for 2021.

[6] Applicants can choose to withhold information about their racial identity during the application process or it may otherwise be unavailable from the data. In 2021, race data was unavailable for 29% of all loans; in 2016 27%, and in 2011 21%. It is possible, but unable to be determined, that a disproportionate share of these loans went to BIPOC individuals. This may skew the results for each listed racial group in the tables in each section, but not the state average.

Table C.6. Interest Rates in 2021 in majority-BIPOC Areas

Interest Rate - New Loans - 50% Majority-BIPOC Areas

	Not Maj BIPOC	Maj BIPOC
	0	1
Asian	2.35	2.38
No Race Available	3.03	3.23
White	2.99	3.03
Black	3.14	3.15
Average	3.01	3.17

Interest Rate - Refi Loans- 50% Majority-BIPOC Areas

	Not Maj BIPOC	Maj BIPOC
	0	1
Asian	1.94	1.93
No Race Available	NA	NA
White	2.72	2.58
Black	2.79	2.86
Average	2.72	2.82

Interest Rate - New Loans - 80% Majority-BIPOC Areas

	Not 80% BIPOC	80%+ BIPOC
	0	1
Asian	2.45	2.14
No Race Available	3.04	3.36
White	2.99	3.05
Black	3.13	3.18
Average	3.01	3.29

Interest Rate - Refi Loans- 80% Majority-BIPOC Areas

	Not 80% BIPOC	80%+ BIPOC
	0	1
Asian	2.03	1.67
No Race Available	NA	NA
White	2.72	2.48
Black	2.79	2.91
Average	2.72	2.90

Source: NCSG analysis of CFPB HMDA Data

Loan to Income Ratios

The HMDA dataset includes the total loan amount for approved mortgages and also the income of the borrower(s). These two numbers can be used to calculate a loan to income ratio, where the ratio is $\$ \, loan\ amount \, / \, \$ \, borrower\ annual\ income$. This ratio is typically larger than 1, as loan amounts will exceed borrower annual income due to amortization over long mortgage time periods. A typical rule of thumb is that the loan to income ratio should be about 3; this will adjust depending on the interest rate environment, the income of the borrower, and the debt level of the borrower.

Table C.7 shows the loan to income ratio across 2011, 2016 and 2021 for different racial groups. Note that the ratios were generally lower in 2011, when home prices were lower and lending standards were strict in the post-recession environment. By 2021, as home prices had risen substantially, this ratio increased for all racial groups as borrowers generally needed to borrow more to afford a home purchase.

Table C.7. New Purchase - Statewide - Loan to Income Ratio

	2011	2016	2021
American Indian or Alaskan	3.06	3.21	3.53
Asian	3.12	3.60	3.64
Black	2.98	3.48	3.99
White	2.81	3.10	3.21
Not provided	2.84	3.14	4.77
Grand Total	2.88	3.23	3.75

Source: NCSG analysis of CFPB HMDA Data

Breaking the loan to income ratio down into census tracts, by race, illustrates additional variation in the data. Loan to income ratios are on average a few tenths of a point higher in majority-BIPOC neighborhoods for each racial group and on average, though Asian borrowers are an exception to this pattern. This means that Black borrowers, for example, are stretching their incomes further to support home purchases in majority-BIPOC areas than in majority-white areas (Table C.8). This implies that borrowers are at more financial risk in these areas, further burdening areas with lower home values with risk.

Table C.8. Loan to income Ratio, New Purchase Loans, 80% Majority-BIPOC Areas, 2011-2021

	Year	Asian	White	Black	No Race	Average
Not Maj BIPOC	2011	3.2	2.8	3.0	2.9	2.9
	2016	3.7	3.1	3.3	3.1	3.2
	2021	4.0	3.4	3.6	3.8	3.6
		Asian	White	Black	No Race	Average
80 % Maj BIPOC	2011	3.5	2.8	2.9	2.8	2.7
	2016	3.5	3.5	3.5	3.3	3.5
	2021	3.6	3.7	3.9	3.9	3.8

Source: NCSG analysis of CFPB HMDA Data

Refinance Share of Loans

Borrowers commonly refinance loans in order to reduce monthly payments, take advantage of lower interest rates, change the time duration of loans, or access home equity. Refinancing transactions make up a larger share of the mortgage market in Maryland than new loans, as in a given year there will be roughly double the number of successful refinances as new loans (at least since 2011). Refinance loan recipients must have their homes appraised and must qualify for the loan in the same manner as applying for a new loan in most cases. In economically disadvantaged areas, applying for refinancing can be challenging due to falling or stagnant home values, personal financial challenges, or biased appraisals.

Table C.9 shows the share of loans that were refinance loans within each racial group. Notable is the lower share, in 2011, of refinance loans for Black borrowers. The 2007-2009 financial crisis caused dramatic drops in home values in Black neighborhoods that likely impacted the ability of a typical homeowner in such a neighborhood to refinance due to negative equity, low appraisals, and more. While this share recovered for Black borrowers, by 2021 it was still below the state average. The lower share of refinance loans going to Black borrowers, combined with the higher denial rate for refinance loans for Black borrowers (see table C.11 and discussion below), reflects the perpetuation of historical disadvantage in Maryland's housing market. In 2021, the refinance share was much higher for all groups, a marker of the low-interest rate environment and the high prices of new homes.

Table C.9. Within Racial Group Share of Loans that were Refinance Loans, 2011-2021

Race	2011	2016	2021
American Indian or Alaskan Native	68.5%	72.1%	71.5%
Asian	67.2%	55.1%	81.7%
Black	57.3%	62.9%	70.4%
White	70.7%	60.1%	71.7%
Not provided	75.7%	67.3%	71.4%
Average	68.9%	58.0%	72.1%

Source: NCSG analysis of CFPB HMDA Data

Denial Rates

HMDA data are classified to show which loan applications resulted in denials by financial institutions. These denials can occur for a variety of reasons, which are described in the data and covered in the next subsection. State averages show that on average, fewer than 1 in 10 loans are denied, but there is significant disparity among racial groups. Black borrowers face a denial rate nearly double that of white borrowers, and this has remained consistent since 2011. Overall, denial rates have fallen since 2011, as interest rates have decreased. These results are consistent with findings in the 2020 State Housing Needs Assessment, which found elevated denial rates for BIPOC borrowers.

Table C.10. Share of New Purchase Loans Denied, 2011-2021

Race	2011	2016	2021
American Indian or Alaskan	12.9%	14.9%	13.4%
Asian	9.7%	9.8%	6.6%
Black	12.0%	14.1%	10.0%
White	6.7%	6.9%	4.9%
Not provided	11.5%	11.0%	3.6%
Average	7.7%	7.3%	5.6%

Source: NCSG analysis of CFPB HMDA Data

Denial rates for refinance loans are significantly higher, on average. Refinance loans may be more likely to be declined because borrowers are often seeking to refinance to reduce monthly payments and may be more likely to be financially distressed than new purchasers. Further, refinance loans are in many cases contingent on appraisals and resulting loan to value ratios, which for reasons already discussed are biased against BIPOC borrowers. For borrowers with less than 20% equity, this can result in the continued necessity of mortgage insurance premiums.

Table C.11. Share of Refinance Loans Denied, 2011-2021

Race	2011	2016	2021
American Indian or Alaskan	28.4%	34.5%	15.8%
Asian	14.9%	19.6%	9.6%
Black	26.7%	30.6%	14.7%
White	14.7%	19.7%	8.3%
Not provided	19.9%	25.2%	8.9%
Average	15.4%	21.2%	9.8%

Source: NCSG analysis of CFPB HMDA Data

In the current high interest rate environment, it is likely that denial rates will tick upward again, as costs for borrowers have dramatically escalated since the low interest rate environment of 2021.

Denial Reasons

HMDA provides the following data on reasons why loans are denied (Table C.12). The reason listed is the primary reason for denial, though some borrowers may have applications denied for more than one issue. Loans are most commonly denied due to inadequate debt-to-income ratios, where the share of the borrower's monthly income covering debt (including the new mortgage payment) would exceed an acceptable fraction. Typically, the allowed ratio is no higher than 43% but many lenders have stricter standards.

Table C.12. Denial Reasons by Race for Denied New, 2021

Reason	Native/ Alaskan	Asian	Black	Race N/A	White	Average
Debt-to-Income Ratio	26.8%	33.2%	30.7%	29.6%	29.1%	30.1%
Employment History	3.6%	3.5%	NA	2.1%	3.1%	3.2%
Credit History	25.0%	9.4%	23.0%	17.4%	16.8%	18.9%
Collateral	12.5%	11.0%	13.4%	14.6%	17.0%	14.6%
Insufficient Cash (Down Payment, Closing Costs)	3.6%	6.1%	5.4%	3.9%	4.9%	5.0%
Unverifiable Information	5.4%	8.0%	4.9%	6.9%	5.1%	5.6%
Credit Application Incomplete	12.5%	16.2%	8.2%	13.0%	11.9%	11.1%
Mortgage Insurance Denied	0.0%	0.1%	0.0%	0.0%	0.1%	0.1%
Other	5.4%	11.7%	9.9%	10.9%	9.7%	10.2%
N/A	5.4%	0.8%	0.5%	1.1%	2.2%	1.2%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: NCSG analysis of CFPB HMDA Data

Other common reasons for denial include credit history, which can reflect poorly on borrowers due to missed payments, late payments, or too many open accounts. A lack of cash or collateral to borrow against is the next most common case. Data for 2021 is shown because there is little apparent or explainable difference between 2011, 2016 and 2021 data. While there are not significant differences by race across the table, it appears that Black borrowers are more likely to have credit history challenges and employment history challenges than other borrowers. With respect to appraisals, the issue of an appraisal gap could cause a loan to be denied due to insufficient cash, collateral, or the other category.

D. Maryland Mortgage Program Policy Assessment

Introduction

The project team conducted a policy review of Maryland's Mortgage Program (MMP) with an emphasis on examining racial disparities and inequities. The purpose of the qualitative review was to learn about the policy's design, administration, and implementation to identify any best practices and lessons learned as DHCD develops its Appraisal Gap From Historic Redlining Financial Assistance Program. More specifically, the purpose of the policy review was to evaluate if the program produces racially equitable outcomes and to determine its impact on and relationship with present-day conditions in Maryland's housing market.

Racial Disparities in Homeownership

As discussed in the literature review, the legacies of redlining, racialized zoning, and restrictive covenants, among other practices, have directly contributed to modern-day racial disparities in Maryland's housing market. In 2020, 78.5% percent of Maryland's white households were homeowners, whereas only 55.0% of Latinx/Hispanic households and 52.6% of Black households were homeowners (Goodman & Zhu, 2021). In 2019, 65% of all homes sold in Maryland went to white buyers, though they represent only 49% of the state's population. Conversely, the Black population represents 29.5% of the state, and only purchased 23.4% of homes for sale in the same year (Yun et al, 2021).[7] This is due in part because Black and Latinx/Hispanic prospective homebuyers typically face more barriers to home ownership than white prospective homeowners – chief among them being less access to mortgage loans (Desilver & Bialik, 2017).

In a 2015 national study, Black mortgage applicants were rejected at a rate of 27.4% while only 11.0% of white applicants were rejected (Desilver & Bialik, 2017). In our analysis of Maryland applicants, we found that Black applicants were denied mortgages 14.1% of the time, while white applicants were denied mortgages only 6.9% of the time in 2016. In 2021, those denial rates decreased slightly, with Black and white applicants being denied at rates of 10.0% and 4.9%, respectively. This demonstrates that even in the absence of racially explicit lending practices, there are clear racial disparities when it comes to accessing mortgage loans.

Barriers to Accessing Homeownership

DHCD's MMP plays a major role in helping to reduce this racial disparity in Maryland's housing market by offering home loans to lower-income BIPOC borrowers who may not otherwise be able to obtain a loan or afford a down payment by conventional means. Over each of the past five fiscal years, a majority of MMP loans have gone to non-white buyers.

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[7] US Census Bureau, 2020 Race by Ethnicity for the State of Maryland https://www.census.gov/library/stories/state-by-state/maryland-population-change-between-census-decade.html

Saving for a down payment is perceived as the greatest barrier to overcome when attempting to enter homeownership. One survey found that 68% of renters cited this as an obstacle, followed by 53% citing qualifying for a mortgage as a major barrier. These perceptions are validated by rising home prices, tighter lending standards and stagnant wages. Furthermore, only 12% of renters were aware of loan products that do not require the traditional minimum 20% down, like those offered by the MMP.[8] Two-thirds of renters believed a down payment of 15% or more was needed to purchase a home (Goodman et al, 2018). However, the loans offered through the MMP, like those through the Federal Housing Authority (FHA), including mortgages requiring 0% down when coupled with a down payment assistance program.

Down payment assistance (DPA) programs can help many BIPOC homeowners access homeownership opportunities. One study found that that 51% of all mortgages purchased by Black borrowers in Maryland in 2017 were eligible for a DPA program. The same is true for 54% of mortgage purchases made by Latinx/Hispanic borrowers. This study also found that these borrowers were eligible for between nine and ten DPA programs and could have received an average of between $11,092 and $14,467 in down payment assistance (Goodman et al, 2018). While it is not known how many of these mortgages took full advantage of the DPA programs available, this demonstrates the importance of DHCD's robust and aggressive direct outreach and marketing to eligible borrowers because many may simply be unaware of their options.

Credit scores are another significant barrier to homeownership. The national median credit score for new home mortgages increased by 10% over the course of a decade, up to 738 in April 2018 (Goodman et al, 2018). This makes it increasingly difficult for those with lower credit scores to qualify for a mortgage. Our analysis found that 23% of all Black mortgage applicants in Maryland were denied because of their credit history while white applicants were denied at a rate of less than 17%. The MMP's minimum credit score requirement is 640, though some of its partner lenders require higher scores. Nationally, the FHA provides 96% of loans for borrowers who put down less than 5% and have a credit score of 640 or below, indicating that buyers with these characteristics have limited choices available to them (Goodman et al, 2018). In our analysis, the FHA provides 60% of all MMP loans, followed by conventional loans at 29%, and the rest representing the remaining 11%.[9]

Purchasing a home using a loan product that requires less than 20% down can come with a cost. These loans with lower down payments are often considered higher risk by lenders, and often come with higher interest rates as a result, which can lead to larger monthly payments for borrowers. Furthermore, due to these mortgages being considered higher

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[8] For the purposes of this study, a low-down payment mortgage loan is defined as less than 20% down because that is the typical threshold when applying for conventional mortgage loans.

[9] DHCD SF MMP Programmatic Data, 2011-2021

risk, homebuyers are also often required to purchase mortgage insurance – which can cost hundreds of dollars a month (Goodman et al, 2018; Goodman et al, 2017). While all borrowers with a loan-to-value (LTV) ratio of 80% or more are federally required to purchase mortgage insurance (irrespective of location), these added costs are compounded in predominantly BIPOC counties, where our analysis found that interest rates were higher than in predominantly white counties. It is important that prospective homebuyers who seek loans with lower down payments through the MMP are given adequate support so that they understand the potential for these added costs. Fortunately, MMP requires all applicants to take an approved homebuyer education course.[10]

These are just several of the barriers that BIPOC homebuyers face when attempting to obtain a mortgage loan to purchase a home. Together, these factors demonstrate the importance and the impact that DHCD's MMP has on opening a pathway to homeownership for low-income BIPOC Marylanders.

MMP Background

The MMP is a mortgage loan program that is primarily designed to help low-income first-time homebuyers purchase homes in Maryland. In addition to 30-year, fixed-interest rate mortgages, the MMP offers a variety of other products and incentives, such down payment assistance, partner matching programs, and student debt consolidation. The MMP has provided thousands of Maryland homebuyers with mortgage products and related financial assistance since its inception in 2011.

Program Overview

MMP offers down payment mortgage products and financial assistance that fall into three primary categories: first-time homebuyers, repeat homebuyers, and specialty loans that either run for a limited amount of time, are location specific, or are designed for specific populations. Most of MMP's mortgage products come with the option to receive a zero percent deferred DPA or closing cost loan.

When applying for an MMP product, there are several eligibility requirements of the potential homebuyer and the home being purchased, which are dictated by a mix of federal guidelines and state statutes. Some key homebuyer eligibility requirements include caps on the household income that vary by location and size of household, credit score minimums, a 20% liquid assets test, and debt-to-income (DTI) ratio caps. Similarly, eligible borrowers must find a home that falls under a certain purchase price, allows them to remain under the LTV cap, and meets property type limitations (e.g., only single-family homes).

Geography plays an important role in determining which homes might be available for purchase through the MMP. For instance, interested borrowers have more flexibility when it comes to household income caps and purchase price caps if they purchase homes in federally defined Targeted Areas. Targeted Areas are places in which 70% or more of the

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[10] DHCD Marketing Staff Interview, December 2022

families have an income that is 80% or less of the statewide median income or an area of chronic economic distress, which have either high unemployment, a high poverty rate, and/or have a declining population. Additionally, if prospective borrowers would like to purchase a newly constructed home, as opposed to a resale, they can only do so if the homes are in Priority Funding Areas (PFAs). PFAs are defined by the Maryland Department of Planning (MDP) in collaboration with local governments to indicate where future state investment should be prioritized and are often tied to the availability of public water and sewer services.

The process of applying for an MMP loan begins with the borrower taking a homebuyer education course. Buyers then go through the typical steps of finding a lender and getting pre-approved, finding a home, and putting in an offer. One key difference is that borrowers getting a loan through MMP go through three rounds of eligibility verification. The lender takes the borrower through the pre-approval process, the loan officer locks in the MMP loan package, and the final MMP application is reviewed by DHCD.

The MMP has taken several steps to make its program accessible and easy for buyers to navigate. Along with the list of MMP-approved lenders, the MMP website allows prospective buyers to sort by lenders who have Spanish-speaking loan officers. MMP-approved lenders automatically follow up with potential borrowers who have not completed their applications if the borrowers were referred to the lenders through the MMP. There are options to apply for the program that do not require internet access. Housing counselors are available to help buyers along the way. Additionally, the DHCD has compiled a list of partner organizations through which buyers may be able to apply for additional financial assistance through its Partner Match Program.

DHCD provides a robust outreach and marketing program by targeting three primary audiences: potential borrowers, lenders, and realtors. For each of these audiences, DHCD utilizes all media forms available to them, including digital ads, radio ads, streaming video ads, print media ads, billboards, transit ads, car wraps, and emails. DHCD also has staff in the community who attend major events and host booths to advertise and educate Marylanders about the availability of the MMP. Though the largest goal of the DHCD's marketing efforts is to attract and educate potential borrowers, they also target potential lenders and realtors. In fact, the DHCD provides new and refresher courses for all employees with their partner lenders and realtors so they know how the MMP operates, and how they can best use the program for their clients. Recent efforts to improve outreach among the state's Latinx/Hispanic population have occurred, including translating materials into Spanish and hiring a new staff member whose job is to conduct outreach in Maryland's Spanish-speaking communities. In recent years, the MMP program has made over 50 million digital impressions and had over 500,000 clicks (or visits) to the MMP website because of their marketing efforts. This results in a conversion rate of 10,000 people applying for the MMP on an annual basis.[11]

[11] DHCD Marketing Staff Interview, November 2022

There are several elements of program administration that are not controlled by the DHCD, but are worth noting, nonetheless. The DHCD must take a race-neutral approach to who receives loans through the MMP program as racial preference in housing is a potential violation of the Fair Housing Act. As a matter of practice, therefore, the DHCD does not evaluate the program's success based on race. While DHCD has taken steps to streamline the application process, it requires more steps than putting in an offer through more traditional means, making MMP's borrowers less competitive particularly in hot housing markets. Similarly, there is a stigma among sellers against buyers who use the MMP, and government-backed loans as means to finance their home purchase.[12]

Stakeholders

The MMP is administered by the DHCD, but there are a variety of stakeholders who play a role in the process. DHCD's primary role is to oversee the application process to ensure that borrowers are in compliance with MMP guidelines, but it also provides applicants with a list of approved lenders, a list of organizations that could offer DPA matching, conducts outreach and marketing, and refers potential borrowers to a homebuyer education course, which is required of all applicants. There are over 100 MMP-approved lenders who work with DHCD to provide mortgage products for its applicants, and DHCD categorizes the lenders as Gold, Silver, Bronze, or "Other Active Lenders" based on how many loans they typically make per quarter. Importantly, the individual potential borrowers play a critical role in the process because their relative eligibility determines what mortgage products and homes are available to them to purchase through the program. Last, the sellers and their agents can influence the process by determining if they will accept an MMP loan, as opposed to a buyer who obtains a mortgage through more conventional means or one that is offering all cash.

Impact of MMP on Racial Disparities in Homeownership

As our literature review and quantitative analysis have demonstrated, racial disparities in access to homeownership exist in Maryland as they do nationally. A common theme discussed in our literature review was the role and impact of policy at all levels of government in both facilitating these disparities and failing to ameliorate them (Rothstein, 2017; Howell & Korver-Glenn, 2018; Perry et al, 2018; Korver-Glenn, 2021). As one of the only, and certainly the largest, facilitator of mortgage loans and down payment assistance for lower-income buyers in the state, the DHCD has an outsized impact when it comes to reducing racial disparities in homeownership. Furthermore, DHCD is now required to proactively do so. The Biden Administration partially restored the Fair Housing Act's Affirmatively Furthering Fair Housing requirement in 2021, which mandates HUD and its funding recipients to take affirmative steps to address housing issues such as racially segregated neighborhoods, a lack of housing choice, and unequal access to housing-related opportunities (HUD Press Release, 2021). Therefore, it is important to understand the impact that MMP has on racial disparities in Maryland's housing market.

[12] DHCD Staff Interview, September 2022

Since 2011, the MMP has facilitated nearly 30,000 loans and provided over $156 million in down payment assistance loans.[13] It is not the only means for low-income Marylanders to purchase a home, but it certainly helps many prospective buyers enter homeownership who may not have been able to otherwise. Sixty-one percent of all MMP loans and 65% of the total amount loaned have gone to BIPOC borrowers.[14]

Roughly 90% of loans go to first-time homebuyers, which is a critical step in building intergenerational wealth and making up for decades of lost wealth accumulation (Choi, Zhu & Goodman, 2018).[15] The MMP mostly serves households with incomes of less than 80% of the area median income (AMI) whose debt-to-income ratios may have prevented them from purchasing a home through conventional means.[16] Importantly, the average DPA loan amount in 2017 was $7,042 which is roughly 3% of the average purchase price for homes bought through the MMP in the same year (National Center for Smart Growth, 2020). This means that the DPA program could cover some, or all, of the minimum down payment needed for many of its loan products.

The program has also changed and adapted over time to improve service delivery, including developing new products, streamlining the application process, creating a ranking system for approved lenders, and providing a list of DPA matching opportunities. For example, to help potential buyers who carry student debt, the DHCD established the MMP's Maryland SmartBuy loan product, which was the first government mortgage program in the nation to specifically address student loan debt. Student loan debt can disqualify mortgage applicants by negatively impacting their debt-to-income ratio (in addition to impacting credit scores). Federal Reserve data shows that people of color, particularly Black students, tend to carry disproportionately higher student debt. In fact, Black borrowers carry an average of 30% more student debt than their white peers (Rivera, 2022). The Maryland SmartBuy program can help reduce this barrier to homeownership by providing approved applicants with forgivable loans for up to 15% of the home purchase price, capped at $50,000, to help the borrower pay off their outstanding student debt.

While the MMP certainly benefits many prospective BIPOC homeowners, some of the program's elements and outcomes may unintentionally reinforce existing barriers to homeownership and racial segregation in Maryland's housing market. The DHCD does not have control over all these factors, but it is important to recognize and discuss any racially inequitable outcomes so that future policy design and decisions can take these outcomes into account.

Program Analysis Discussion

There is no single policy that will eradicate generations of racial disparities in Maryland's housing market. The MMP is one avenue that many BIPOC borrowers have used to become homeowners for the first time. In some cases, those borrowers may be the first

[13] DHCD SF MMP Programmatic Data, 2011-2021
[14] DHCD SF MMP Programmatic Data, 2011-2021
[15] DHCD Staff Interview, September 2022
[16] DHCD Staff Interview, September 2022

homeowners in their family's history, which could be the seed needed to grow intergenerational and community wealth. However, other elements of MMP may unintentionally allow today's housing disparities and the racial wealth gap to continue. Notably, deeper issues that are outside of the control of DHCD are to blame as well, including income inequality, wage stagnation and the housing valuation process at-large.

Assuredly, the MMP has played a critical role in helping BIPOC borrowers enter homeownership, which likely helps to reduce the gaps in homeownership between the state's racial and ethnic groups. The MMP has facilitated the purchase of tens of thousands of mortgage loans with funds totaling over $156M between 2011 and 2021. Furthermore, 65% of those funds have gone to BIPOC borrowers, clearly demonstrating the positive impact of this program. In fact, Maryland has the third highest homeownership rate for Black Americans among all U.S. states and territories. (Yun et al, 2021)

However, it is critical to take a nuanced look at policy design and outcomes, as homeownership is only one element of what contributes to the state's racial disparities in the housing market. As discussed in the literature review, racial biases have infiltrated all aspects of the home valuation process, which adversely impacts BIPOC homeowners who wish to sell their home. Furthermore, the explicitly racist policies of the past bake in lower home valuations made today, which reduces the ability of homeowners to grow equity, qualify for refinancing, or access home repair loans. All of this emphasizes the importance of the location and geographic distribution of the homes purchased through the MMP.

For instance, the average home price purchased with an MMP loan was $228,567 while the median home value across Maryland was nearly $300,000 (National Center for Smart Growth, 2020). This means those who purchase homes through the MMP are likely to accrue wealth at a below-average rate given the lower purchase price. However, this is also a direct consequence of what the borrowers can afford so that they have manageable LTVs and mortgage payments. DHCD and its approved lenders are careful to avoid practices that caused the foreclosure crisis, during which predatory lenders sold low-income borrowers mortgage products that they could not afford in the long-term. Homeownership is not the silver bullet that will close the racial wealth gap, but it is a significant step in that direction. However, it is important to recognize that, by virtue of these homes being below median value, the owners are at a disadvantage when it comes to wealth accumulation and equity building.

Additionally, as we discussed in our literature review, homes in predominantly BIPOC neighborhoods are routinely undervalued, which reduces opportunities for wealth accumulation and access to important amenities like public transit, employment, and better education (Howell & Korver-Glenn, 2018; Freddie Mac, 2021; PAVE, 2022; Perry et al, 2018; Zonta, 2019). Therefore, additional analysis is needed to determine if allowing moderate income borrowers to obtain an MMP loan to purchase a home in Targeted Areas (which are economically distressed) plays a role in perpetuating the cycle of low appraisals and diminished wealth building for moderate-income BIPOC homeowners. Importantly, however, this program does expand the choice of homes and locations available to moderate-income borrowers.

Recommendations

Developing a full array of recommendations is beyond the scope of this project, though several other opportunities for improvement are readily apparent. For instance, the State should consider advocating for a two-pronged approach that provides incentives and avenues for moderate-income homebuyers to break into the higher-income markets located outside of the Target Areas where there are likely to be more opportunities for wealth accumulation and upward mobility. Allowing moderate-income borrowers to access MMP products to purchase homes in Targeted Areas should not be removed; instead, first-time homebuyers could receive a different set of incentives or bonuses for purchasing outside of the Targeted Areas. This recommendation is about reducing barriers and expanding choice throughout the state, as opposed to solely encouraging moderate-income buyers to invest in high-poverty census tracts. Further research could evaluate the geographic distribution and the efficacy of the federally defined Targeted Areas incentives and could take a more granular look at where the program's funding originates, what parameters are attached to those funds, and where flexibility might exist so that they can be used most effectively for reducing racial disparities in Maryland's housing market.

Additionally, MMP's impact could be expanded even further if additional funds were allocated for the DPA program. Considering the recent increases in interest rates, it is more challenging than ever for some to obtain affordable mortgage loans. Larger down payments expand the range of homes available to low- and moderate-income buyers and makes mortgages more affordable. Another policy change that could increase housing choices would be to expand the state's PFA boundaries. Currently, MMP borrowers can only purchase new homes if they are located within a PFA, limiting the availability of this type of housing stock for MMP borrowers.

Additionally, a nationwide Fannie Mae survey found that BIPOC and low-income households are more likely to rate themselves as lacking the necessary knowledge to enter the homebuying process (Herbert, Rieger & Spader, 2017). Given the success of MMP and the robustness of the current marketing program, it is entirely possible that Maryland's BIPOC and low-income households are more informed than the national average, but this survey underscores just how critical outreach and marketing is for helping these borrowers enter the homeowner arena. Consequently, the state should consider allocating additional funding to DHCD for this express purpose.

Furthermore, while the MMP cannot allocate money or loans based on race, it could more regularly and proactively evaluate the composition of its loan recipients to determine how their programs may or may not reduce barriers to homeownership for BIPOC borrowers. Last, the DHCD could partner with credit repair programs to help borrowers who were denied a loan because of poor or missing credit. Similarly, the DHCD could provide loans or grants to MMP borrowers for weatherization and other needed repairs if they purchase older homes.

The following section uses a quantitative approach to evaluate DHCD and the Department of Transportation's programmatic spending to determine if there is systematic discrimination against BIPOC communities in the allocation of State housing and transportation funds.

E. Analysis of Spending Patterns Among State Agency Programs

The following reports the findings of our analysis of the pattern of funding for a range of Maryland state agency spending. The purpose of the analysis is to test for evidence of racial and ethnic discrimination in how funds are allocated. The following sections offer program identifiers, describe the program spending data provided for this analysis, the analytic methodologies chosen, and our findings. With caution due to data limitations, our analyses do not find evidence that persons in BIPOC communities suffer from funding gaps among state programs that we have analyzed.

Distribution of State Program Funds

In this analysis we examined the distribution of funds in programs operated by the Maryland DHCD and the Maryland Department of Transportation focusing on State funds expenditures. In many of these programs, total funding is a blend of federal and State funds. The programs included in these analyses are shown in the following table.

Table E.1: Spending Programs Included in this Analysis

Maryland Department of Housing and Community Development

Program	File Name	Description
Maryland Mortgage Program	SF MMP	Lending programs focused on expanding single family ownership opportunities
Single Family Special Loans	SF Spec Loans	Loans supporting housing rehabilitation.
Multi-Family Services Vouchers	MF Servs	This category represents multiple housing voucher programs including: bridge subsidy program, elderly rental housing, Housing Opportunities for Persons with AIDS, Mainstreet 5 vouchers, Rental Allowance program, Section 8 programs (HCV Family Unification, HCVP, disabled persons, Housing Choice, Moderate Rehabilitation, Veterans Supporting Housing, Performance Based Contract Administration) and contract administration funding.
Multi-Family Construction Loans	MF Cons	Includes loans for multi-family housing covering the development of new units, acquisition of existing units, and rehabilitation and repair of existing units.
Neighborhood Revitalization: Baltimore Regional Neighborhood Initiative	NR BRNI	Revitalization: for housing and businesses.

Neighborhood Revitalization: Community Legacy Program	NR CL	Funding to local government and community development organizations for business attraction and retention, commercial property revitalization, and supporting homeownership.
Neighborhood Revitalization: Strategic Development Fund	NR SDF	Accelerate economic development and job production focused on grayfield development.
Neighborhood Revitalization: National Capital Strategic Economic Development	NR NED	Competitive funding program to support commercial and residential development and redevelopment
Neighborhood Revitalization: Seed Community Development Anchor	NR Seed	Competitive grants to higher education or hospital institutions (anchors) for community development projects in blighted areas.
	Maryland Department of Transportation	
State Highways Fund	SHA	Construction and maintenance of road systems including planning and equipment. Also includes wetlands restoration for mitigation.
Maryland Transit Administration	MTA	Facilities development and maintenance for transit systems and support

Sources: Data and information provided by Maryland Department of Housing and Community Development and Maryland Department of Transportation

The data provided by DHCD staff show actual program expenditures in the form of loans, vouchers, and contracts depending on the program, with varying levels of detail about fund recipients. We do not have data on applicants who were not awarded program funds; therefore, we cannot determine if there is any evidence of racial or ethnic bias that influenced the choice of recipients. However, we can determine if the geographic distribution of funding suggests the potential for bias. The level of geographic detail provided for each program varied, which influenced the method of data analysis employed. The table below provides an overview of the data provided for each program included in this analysis.

Table E.2: Data Summary

Program	Geography	Variable of Interest	Race Indicated	Years
Maryland Department of Housing and Community Development				
SF MMP	County	DPA Loan Amount	Yes	FY11-FY22
SF Special Loans	County	Loan Amount	Yes	FY11-FY22
MF Services Vouchers	County	Funds/units assisted	No	FY11-FY22
MF Construction	Address	DHCD funds	No	FY11-FY22
NR BRNI	Address, includes county variable, some multi-jurisdictional	Award amount	No	FY14-FY22
NR CL	Address	Award amount	No	FY11-FY22
NR SDF	Address	Award amount	No	FY13-FY22
NR Seed	Address	Award amount	No	FY19-FY22
NR NED	Address	Award amount	No	FY 19
Maryland Department of Transportation				
SHA	24 Counties, Balt. City	Project Expenditures	No	2012-2022
MTA	22 Counties, Balt. City	Project Expenditures	No	2012-2024

Sources: Maryland Department of Housing and Community Development and Maryland Department of Transportation

Methodology

The following provides an overview of the methodology used in our analyses of program spending patterns. Overall, the research approach compared the distribution of spending to the proportion of minorities living in the community. The community is defined as being either a census tract or a county/city, depending on the data provided. The research process included:

- Sum the awards by geography (census tract or county).
- Identify each geographic area as either majority-white only, meaning that 50% or more of the resident population is white only. A BIPOC-majority community has at least 50% of the total population identity as a race/ethnicity other than white only, such as Non-Hispanic Black, Native American, Hispanic, Asian, and people of two or more races.
- Compare funding allocation by geography for white-majority communities to BIPOC-majority communities.
- Data provided for the SF MMP program allowed separate statistical tests for Black-majority areas and Latinx/Hispanic-majority areas.
- The statistical methods used included:
    - Point-Biserial Correlation Coefficient: Determines if there is a statistically significant correlation between a continuous variable (program funding) and a dichotomous descriptor variable (BIPOC area).
    - For the larger sample analyses, we confirmed the findings of the Point-Biserial Correlation procedure with a simple least squares regression.
    - For programs with a smaller number of awards, we use t-tests to look for differences in funding between BIPOC and majority-white areas.
    - These tests were constructed to effectively ask the question: Did BIPOC-majority areas receive higher or equal levels of program funds compared to majority-white areas. This is a means comparison of the average value of funds by community.
    - For the total distribution of funding, we report the sum of funding to majority-white and BIPOC-majority communities as the descriptive statistic percentage of all funding in the given program.

Findings

The findings of our analysis are summarized below and in the following tables.

Department of Housing and Community Development Programs

SF MMP program included enough cases to test the significance of descriptor variables indicating that the census tract is a Non-Hispanic Black-majority population or a Latinx/Hispanic-majority population. No other POC group individually represents a majority of the population in any Maryland geography receiving program funds.

- Majority-BIPOC areas received more funding, on average.
- Black (non-Hispanic) areas received more funding, on average.
- Latinx/Hispanic areas received less funding, on average.
- Majority-BIPOC areas, collectively, received 65.1% of total program funding for FY2011-FY2022.

MF Const

- No statistically significant differences in funding between majority-BIPOC areas and majority-white areas
- Majority-BIPOC areas, collectively, received 68.5% of total program funding for FY2011-FY2022.

NR BRNI

- No statistically significant differences in funding between majority-BIPOC areas and majority-white areas.
- Majority-BIPOC areas, collectively, received 84.4% of total program funding for FY2014-FY2022.

NR CL

- No statistically significant differences in funding between majority-BIPOC areas and majority-white areas.
- Majority-BIPOC areas, collectively, received 54.2% of total program funding for FY2011-FY2022.

NR SDF

- Majority-BIPOC communities received higher levels of funds, on average.
- Statistically significant based on a two-sample t-test with a Kolmogoroz-Smirnov test for unequal distributions with the samples. Other tests did not show statistical significance.
- Majority-BIPOC areas, collectively, received 78.5% of total program funding for FY2013-FY2022.

NR SEED

- This program had fewer than 30 data points, therefore statistical significance tests become less meaningful. More importantly, variance between majority-white and majority-BIPOC communities was small.
- Almost 90% of this program funding went to projects located in majority-BIPOC areas for FY2019-FY2022.

NR NED

- This program had only 35 data points (areas/communities) and only three out of the 35 are not majority-BIPOC.
- The Point-Biserial Correlation coefficient is statistically significant and negative, meaning the average total funding for majority-BIPOC areas is below the average of the 3 majority-white areas. However, the t-tests of means differences was not significant. This mixed finding is directly attributable to the small number of cases and the dominance of majority-BIPOC communities within the "sample."
- Majority-BIPOC areas, collectively, received 85% of total program funds for FY2019, the only year shown for this program.

MF Services

- This program data was only available at county totals.
- There are four Majority-BIPOC County/City areas among those receiving funding including Baltimore City, Charles County, Montgomery County, and Prince George's County.
- The proportion of total program funds going to these four areas was 54.5% for FY2011-FY2022.
- Baltimore City alone received more than $500 million of the $1.97 billion distributed in this program.

Table E.3: MD-DHCD Program Funds Allocation FY2011-FY2022

Program	Geo	Area Count	BIPOC Significant	Total Awards	Awards BIPOC ($)	Awards BIPOC (%)
SF MMP	Census Tract	1,271	Yes Min (+) Yes Blk (+) Yes Hisp (-)	$156,944,126	$102,243,241	65.1%
MF Constr	Census Tract	242	No	$511,863,801	$350,736,842	68.5%
NR BRNI	Census Tract	88	No	$63,614,312	$53,704,312	84.4%
NR CL	Census Tract	205	No	$61,479,163	$33,313,163	54.2%
NR SDF	Census Tract	127	Yes (+)	$183,204,017	$143,774,017	78.5%
NR SEED	Census Tract	23	Yes (+)	$19,500,000	$17,500,000	89.7%
NR NED	Census Tract	35	Yes (-)	$16,200,000	$13,770,000	85.0%
MF Services	County	22	N/A	$1,970,556,559	$1,071,623,349	54.4%

Sources: Maryland Department of Housing and Community Development and Maryland Department of Transportation

SF Special Loans: There is missing data on this program and the area is limited to counties. Therefore, we used a different methodology in assessing this program. We compared the actual program spending (loans) by race/ethnicity to a predicted value that represents the distribution of the population by race/ethnicity. For example, Non-Hispanic Black Marylanders represent 29.4% of the population. If the distribution of loans equaled this proportion, $18.4 million in loans would have gone to Non-Hispanic Black borrowers. The actual distribution of loans shows $41.4 million in loans to Non-Hispanic Black borrowers. Other notes on the analysis of this program include:

- Total value of loans for which the data do not show county or race/ethnicity of recipient: $375,000
- Of the remaining loans, we do not have data on the race/ethnicity of the recipient for 34.3% of the loans by value ($32,734,208).
- We must assume that loan recipients identified as Latinx/Hispanic are unique and not counted in white, Black or other categories.
- “Other” includes another race not included in the categories specified in the following table or persons of 2 or more races.
- We do not have income data, so we cannot say that the difference in actual versus predicted reflect discrimination, though there is a trend of Latinx/Hispanic borrowers being under-represented in the single-family support programs.

Table E.4: MD-DHCD Special Loans Program

Race/ Ethnicity	% of Population	Predicted Loans	Actual Loans	Difference ($)	Difference (%)
White	50.2%	$31,467,544	$19,113,310	-$12,354,234	-39.3%
Black	29.4%	$18,429,637	$41,384,956	$22,955,319	124.6%
Asian	6.3%	$3,969,449	$215,598	-$3,753,851	-94.6%
Latinx/ Hispanic	10.3%	$6,436,058	$765,752	-$5,670,306	-88.1%
Other	3.9%	$2,431,199	$1,155,637	-$1,275,562	-52.5%
All BIPOC*	49.8%	$31,266,342	$43,521,943	$12,255,601	39.2%

Source: Maryland Department of Housing and Community Development

Department of Transportation

Department of Transportation program funding is reported only at the county level. Therefore, the analysis compares funding for project work in majority-white counties and BIPOC-majority counties. For analysis purposes, Baltimore City is treated as a county. To be clear, transportation infrastructure funding is often distributed based on the size of geography. The number of lane miles is the primary determinant of how much funding goes to a particular jurisdiction for construction and maintenance, though it is theoretically possible for there to be disparities related to the frequency of repairs in some communities. As discussed elsewhere in this report, historically, discriminatory practices reflected decisions to spend more money, such as programs to build new highways, in

BIPOC communities. Still, the analysis presented below provides an overview of where spending on transportation programs is happening.

SHA:

- There have been 8,460 transportation-related projects funded in this program. The reported dates are for project completion; therefore, actual program spending likely occurred in years prior to CY2012. Due to the mechanism for allocating federal transportation (highway) funding, we report findings for both total program funding and state only program funding.
- There were negative funding values shown for 6 projects totaling about $3.3 million. We assume these to be accounting adjustments at project end. The value of these projects, compared to overall funding levels, is not material to this analysis.
- No spending data are shown for 416 projects.
- The project list includes 780 projects where the delivery geography is labeled “areawide” with spending across all projects totaling $729.7 million in State funds and $1.157 billion in combined state and federal funds. These projects are not included in this analysis, though their inclusion could alter our assessment of the distribution of spending.
- Majority-BIPOC areas received $708.9 million in State funds, and $1.946 billion in total state and federal funds representing 28.8% of state funds and 27.2% of combined state and federal funds for projects that closed 1/30/2012-8/31/2022.

MTA

- No statistically significant differences in funding.
- Majority-BIPOC areas, collectively, received 78.8% of total State program funding and 73.7% of combined state and federal funding in this program for projects with actual or scheduled end dates 2012 through 2024.

Table E.4 Maryland Department of Transportation Spending

		State		State + Federal	
Area	# of Counties	Funding	% Total	Funding	% Total
		State Highway Administration			
Majority-White Areas	20	$1,750,937,767	71.2%	$5,209,687,905	72.8%
Majority-BIPOC Areas	4	$708,901,489	28.8%	$1,945,989,583	27.2%
Totals	24	$2,459,839,256	100.0%	$7,155,677,488	100.0%
		Maryland Transit Authority			
Majority-White Areas	18	$122,825,123	21.2%	$363,955,272	26.3%
Majority-BIPOC Areas	4	$456,574,772	78.8%	$1,018,005,674	73.7%
Totals	22	$579,399,895	100.0%	$1,381,960,946	100.0%

Source: Maryland Department of Housing and Community Development

Community Development Administration

The Community Development Administration data is at the county-level (including Baltimore City).

Table E.5: Community Development Administration Spending

Program	Number of Counties	Number of Counties BIPOC Majority	Total Spending White Majority	Total Spending BIPOC Majority	Per Capita Spending White Majority	Per Capita Spending BIPOC Majority
CDA_LGIF	19	3	$252,137,947	$48,928,458	$169.62	$23.08
CDA MF CNS	23	4	$262,782,896	$249,080,905	$79.96	$91.51
CDA MF ENG	24	4	$39,090,605	$49,042,079	$11.79	$18.02
CDA_NBW	24	4	$29,127,810	$55,088,946	$9.04	$20.24
CDA SF	24	4	$141,307,670	$96,624,937	$42.62	$35.50
Commerce	24	4	$291,180,651	$314,896,774	$87.82	$115.69
DGS	19	3	$496,738,670	$347,092,944	$161.24	$207.31
NR	24	4	$125,868,236	$292,757,795	$37.96	$107.56

Source: Maryland Department of Housing and Community Development

Data for this program showed loan by household self-identified race/ethnicity. The analysis by loan by ethnicity may not be accurate. Of the total $6.4 billion spent in this program, there is no reported data on race/ethnicity of the borrower for $535.7 million in loans (8.3%).

Table E.6: CDA MMP Spending

Category	Loan $ Per Capita
American Indian/Alaskan Native	$1,143.32*
Asian/Pacific Islander	$304.15
Black Non-Hispanic	$1,448.36
Latinx/Hispanic	$701.27
White only	$667.73
Other**	$194.19
	Per Capital Spending
White-Majority Counties	$764.72
BIPOC-Majority Counties	$1,203.96

*American Indian/Alaskan Native population represents 0.19%. This average is an artifact of a very small subset of the population and loans distributed in the MMP program.
**Assume includes "other" and "2 or more races"
Source: Maryland Department of Housing and Community Development

Even though this analysis shows under-performance in some programs regarding the proportional distribution of funds to minority counties, this level (geographic) of analysis does not allow drawing a conclusion of discrimination. The loans issued in majority-white communities could have all gone to minority households – the data does not show this one way or the other.

The CDA MMP program offers interesting results, with some caution due to missing race/ethnicity data on 8.3% of the loans, by value. These data clearly suggest further examination of program spending for Asian/Pacific Islander communities that would consider specific household financial characteristics.

Section Summary

The data provided for this analysis represented several different programs across two state agencies. There is no evidence in the analyses presented that supports the presence of systemic discrimination across all programs. The data do show that in the Single-Family Home lending program, Latinx/Hispanic-majority census tracts saw smaller loans, on average. However, there are other market factors that could explain that difference.

A statistical significance test of average program spending in the NR NED program showed that spending in majority-BIPOC communities may be slightly smaller on average, but other statistical tests did not support this observation. More importantly, over 85% of total funding in NR NED program, which is only three years old, occurred in BIPOC areas, clearly showing no programming bias. The data provided do not allow a systemic review of the contributions of these programs to better housing or improving neighborhood conditions for BIPOC communities. For programs that offer loans directly to home buyers, the data provide location and demographic data for loan recipients, not on those who were denied loans. Therefore, we cannot determine if there was bias among individual applicants, but there was no evidence of bias against BIPOC-majority neighborhoods.

F. Conclusions

Racial disparities in the Maryland housing market exist, just as they do nationally. Our literature review establishes this existence at the national level by outlining the research conducted to date that has studied disparities in the valuation of residential properties by race and ethnicity. It further discusses how public and private policies in the real estate ecosystem contribute to these racial disparities and offers some policy remedies to ameliorate them.

Our quantitative assessment frames some of the literature review's findings in the context of Maryland by analyzing the state's demographics, home values, home appraisals, and homeownership financing data. When examining home values, we found that lower than average median home values are present in the state's predominantly rural and BIPOC areas, including Southern Maryland, the Eastern Shore, Western Maryland, Prince George's County, Baltimore City, and the portions of Baltimore County with disproportionately high shares of BIPOC residents. Furthermore, homes in census tracts where BIPOC residents make up 80% or more of the population have even lower home values. These 80%+ BIPOC areas have also recovered the loss in home values after the Great Recession at a slower rate than majority-white areas and are more likely to have home appraisal values assigned below contract prices. All of this points to a diminished ability to grow wealth through homeownership for BIPOC households and, thus, a continued expansion of the racial wealth gap in Maryland. Furthermore, our analysis of HMDA data showed that mortgage loans are more difficult to access for BIPOC borrowers, and that the loans tend to be more expensive in terms of finance costs as well.

The DHCD is one of the most impactful agencies and has some of the most powerful tools in the State when it comes to addressing racial disparities in the state's housing market. Regarding homeownership specifically, the MMP provides a crucial avenue for accessing loans and down payment assistance for prospective BIPOC homeowners in the state. The program's wide array of products, aggressive marketing campaigns, homeownership education and consultation, and the willingness to adapt the program over time have all contributed to the program's success. However, further evaluation of the geographic distribution of the MMP loans is needed to further assess the impact on the state's spatial segregation by race.

Our analysis of DHCD and MDOT programmatic spending found that the programs designed to support BIPOC homeownership and community development in BIPOC neighborhoods are distributed mostly to BIPOC-majority areas, as intended. In fact, over 85% of the total funding examined in this study went towards BIPOC-majority areas, clearly showing no programmatic bias in the disbursement process. Looking at the MMP specifically, over 65% of the program's funds have gone towards BIPOC borrowers. However, it was discovered that Latinx/Hispanic areas receive less funding on average, and those who live in majority-Latinx/Hispanic areas tend to receive smaller loans.

Further analysis could provide additional insight into the state's housing-related racial disparities and public investments. For example, a more in-depth examination of the below average spending and loans in majority-Latinx/Hispanic areas is crucial. A spatial analysis coupled with stakeholder interviews and focus groups could illuminate the geographic distribution of the MMP, which could determine if borrowers are breaking into higher-income areas with more opportunities for upward mobility, or if borrowers largely purchase homes in areas with disproportionately lower incomes and access to wealth building opportunities.

While this research would prove informative, the evidence presented in this study suggests that racial disparities in housing are indeed present in modern-day Maryland. Consequently, the passage of the Senate Bill 859, establishing the Appraisal Gap From Historic Redlining Finance Assistance Program, was needed. Furthermore, the DHCD will be a good steward of administering these funds to address the state's racialized housing inequalities.

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H. Appendix

FHFA UAD - Total Loans

Total of Purchase Loans - 2021

80% Majority-BIPOC Tracts		50% Majority-BIPOC Tracts	
Tract type	Total Loans	Tract type	Total Loans
Not 80% BIPOC	55,477	Not 50% BIPOC	40,578
80% BIPOC	10,873	50% BIPOC	25,772
Total Loans	66,350	Total Loans	66,350

Source: NCSG Analysis of FHFA UAD data

HMDA - Interest Rate - 2021

Statewide Averages

Race Category	New Loan	Refinance
2 or more BIPOC races	3.10	2.72
American Indian or Alaska Native	3.09	2.79
Asian	3.01	2.62
Black or African American	3.12	2.79
Native Hawaiian or Other Pacific Islander	3.05	2.77
Race Not Available	3.16	2.76
White	3.07	2.77
Average	3.11	2.76

Source: NCSG Analysis of CFPB HMDA data

Interest rate - New Loan Average Rate, by County, by Race

County	Two +	AI/AN	Asian	Black	HP	No Race	White	Grand Total
Allegany	2.56	3.27	3.30	3.49	3.75	3.25	3.16	3.20
Anne Arundel	3.19	2.92	3.00	3.11	3.05	3.07	3.05	3.06
Baltimore Co.	3.17	3.23	3.12	3.14	2.95	3.23	3.11	3.16
Calvert	2.69	2.98	2.93	3.03	2.87	2.99	2.98	2.99
Caroline		3.17	3.11	3.05		3.10	3.06	3.08
Carroll	2.82	3.31	3.06	3.04	3.43	3.04	3.03	3.03
Cecil	4.04	3.04	3.17	3.06	3.00	3.13	3.18	3.15
Charles	2.96	3.42	3.16	3.12	3.14	3.14	3.02	3.11
Dorchester	3.81	3.25	2.86	3.30	3.00	3.17	3.20	3.20
Frederick	3.01	3.07	2.98	2.98	2.93	3.06	3.04	3.04
Garrett			2.93	2.87	3.13	3.23	3.12	3.15
Harford	3.08	2.88	3.12	3.13	3.09	3.15	3.09	3.11
Howard	3.07	2.85	2.96	3.12	2.80	3.06	3.05	3.04
Kent			2.99	3.22	3.00	3.07	3.00	3.03
Montgomery	3.04	2.90	2.94	3.05	2.74	3.04	3.01	3.01
Prince George's	3.08	3.19	3.13	3.11	3.25	3.22	3.17	3.16
Queen Anne's		3.02	2.94	3.17	3.00	3.01	3.05	3.03
Somerset	2.98	3.38	2.97	3.08	3.25	3.04	3.02	3.03
St. Mary's			2.93	3.00		3.16	3.10	3.12
Talbot	3.25	2.75	2.71	3.08	2.75	3.09	3.07	3.07
Washington	3.46	2.87	3.10	3.13	3.12	3.24	3.15	3.18
Wicomico	2.72	2.95	2.91	3.05	3.21	3.11	3.06	3.07
Worcester	3.13	2.96	3.13	3.16		3.17	3.15	3.16
Baltimore City	3.23	3.46	3.22	3.22	3.13	3.44	3.10	3.27
Average	3.10	3.09	3.01	3.12	3.05	3.16	3.07	3.11

Source: NCSG Analysis of CFPB HMDA data

Interest Rate - Refinance Loan Average Rate, by County, by Race

County	Two +	AI/AN	Asian	Black	HP	No Race	White	Average
Allegany		2.69	2.73	3.06		2.89	2.86	2.87
Anne Arundel	2.61	2.76	2.67	2.73	2.76	2.71	2.74	2.73
Baltimore County	2.75	2.85	2.72	2.80	2.94	2.81	2.80	2.80
Calvert	4.00	2.62	2.53	2.73		2.67	2.72	2.71
Caroline		2.44	2.69	2.85		2.73	2.85	2.82
Carroll	2.97	2.84	2.68	2.82	2.58	2.75	2.80	2.78
Cecil		2.50	2.73	2.75	2.00	2.73	2.82	2.79
Charles	2.85	2.74	2.66	2.74	2.77	2.70	2.71	2.72
Dorchester		2.63	2.25	2.87		2.77	2.84	2.82
Frederick	2.79	2.81	2.63	2.74	2.66	2.76	2.79	2.77
Garrett			2.97			2.86	2.84	2.84
Harford	2.46	2.82	2.62	2.72	2.68	2.76	2.77	2.76
Howard	2.69	3.01	2.53	2.78	2.76	2.66	2.72	2.67
Kent	3.00	2.79		2.85		2.74	2.84	2.81
Montgomery	2.69	2.75	2.58	2.75	2.70	2.69	2.73	2.70
Prince George's	2.73	2.83	2.77	2.79	2.78	2.78	2.82	2.79
Queen Anne's	1.88	2.62	2.72	2.72	2.88	2.76	2.78	2.77
Somerset	2.33	2.78	2.60	2.76	2.90	2.61	2.69	2.67
St. Mary's				2.95		2.75	2.85	2.83
Talbot		3.00	2.70	2.80		2.74	2.80	2.79
Washington	2.45	2.59	2.68	2.85	2.67	2.86	2.84	2.84
Wicomico	2.75	2.55	2.61	2.85	3.00	2.82	2.85	2.84
Worcester		2.63	2.66	2.91		2.81	2.84	2.83
Baltimore City	2.87	2.86	2.99	2.98	2.84	3.11	2.85	2.96
Average	2.72	2.79	2.62	2.79	2.77	2.76	2.77	2.76

Source: NCSG Analysis of CFPB HMDA data

Loan to Income

Refinance - Statewide - Loan to Income Ratio

	2011	2021
American Indian or Alaskan	2.85	3.53
Asian	2.91	3.64
Black	2.75	3.99
Native Hawaiian or OPI	2.65	2.99
White	2.59	3.21
Not provided	2.67	4.77
Grand Total	2.64	3.75

Source: NCSG Analysis of CFPB HMDA data

New Loans - Loan to Income Ratio - 50% Majority-BIPOC

New Loans: Loan/Income Ratio

	Year	Asian	White	Black	No Race	Average
Not Majority BIPOC	2011	3.1	2.9	3.0	2.9	2.9
	2016	3.8	3.1	3.2	3.0	3.1
	2021	3.9	3.4	3.6	3.7	3.5

		Asian	White	Black	No Race	Average
Majority BIPOC	2011	3.1	2.8	2.8	2.7	2.8
	2016	3.5	3.3	3.4	3.3	3.4
	2021	3.8	3.6	3.8	3.9	3.7

Source: NCSG Analysis of CFPB HMDA data

Refinance Loans - Loan to Income Ratios – 50% Majority-BIPOC

Refinance Loans: Loan/Income Ratio

	Year	Asian	White	Black	No Race	Average
Not Majority BIPOC	2011	2.9	2.5	2.8	2.6	2.6
	2021	3.3	3.1	4.5	4.4	3.4
	Year	Asian	White	Black	No Race	Average
Majority BIPOC	2011	3.1	2.6	2.7	2.7	2.7
	2021	3.3	3.1	3.6	4.5	3.7

Source: NCSG Analysis of CFPB HMDA data

Refinance Loans - Loan to Income Ratios – 80% Majority-BIPOC

Refinance Loans: Loan/Income Ratio

	Year	Asian	White	Black	No Race	Average
Not Majority BIPOC	2011	3.0	2.5	2.8	2.6	2.6
	2021	3.4	3.1	4.1	4.4	3.4
	Year	Asian	White	Black	No Race	Average
Majority BIPOC	2011	2.8	2.7	2.7	2.7	2.7
	2021	2.9	3.3	3.7	4.4	3.9

Source: NCSG Analysis of CFPB HMDA data

Refinance Loans - Denial Reasons

Refi Loans - Denied - Denial Reason - 2021

Reason	Native/ Alaskan	Asian	Black	Race N/A	White	Grand Total
Debt-to-Income Ratio	22.5%	33.8%	19.4%	21.7%	24.1%	22.8%
Employment History	1.7%	2.2%	0.9%	1.1%	1.3%	1.2%
Credit History	26.7%	11.3%	28.8%	18.9%	19.0%	21.3%
Collateral	5.8%	5.5%	7.6%	7.4%	8.1%	7.6%
Insufficient Cash (Down Payment, Closing Costs)	2.5%	2.8%	2.1%	2.4%	1.8%	2.1%
Unverifiable Information	7.5%	6.8%	4.2%	6.8%	6.4%	5.9%
Credit Application Incomplete	18.3%	25.6%	21.9%	28.8%	26.7%	25.8%
Mortgage Insurance Denied	0.0%	0.1%	0.0%	0.1%	0.1%	0.1%
Other	14.2%	11.7%	14.5%	12.1%	11.8%	12.7%
N/A	0.8%	0.2%	0.5%	0.6%	0.6%	0.5%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: NCSG Analysis of CFPB HMDA data