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MARCH 2025

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Evidence of Racial Bias in Home Appraisals in the Baltimore Metropolitan Area

Acknowledgments

This research was supported with a grant from the Abell Foundation.

The authors are grateful for comments and opinions expressed by the five expert external reviewers on an earlier version of this report. The final report is responsive to those generously shared constructive suggestions.



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Executive Summary

Combatting racial bias in home appraising has long been the subject of the nation's fair housing laws and the agencies charged with enforcing those laws. But it has historically not been an area garnering great public attention, nor was it the subject of many fair housing complaints or enforcement actions. But that has changed in recent years – and for good reason.

Appraisals that are tainted by racial bias harm people and communities in many ways. As explained in the federal Property Appraisal and Valuation Equity (PAVE) Task Force Action Plan:

An appraisal that is below the contract price in a home sale can sometimes result in a higher required down payment for a home buyer. This unexpected, out-of-pocket increase can often cause a sale to fall through, potentially preventing a prospective buyer from purchasing a home. It can also result in a downward price renegotiation, helping the buyer, but reducing the seller's financial gains, which may in turn hinder that family in purchasing their next home. A low valuation in a refinance transaction can be similarly damaging to a homeowner, reducing the cash-out available and in some cases affecting the re-finance interest rate and mortgage insurance premiums the homeowner pays, which can result in substantial costs over time.

A widespread pattern of undervaluation in communities of color can impact an entire neighborhood. Each instance of a lower purchase price becomes a candidate for the next appraiser to choose as a comparable sale for the next appraisal in the community, carrying the impact of the lower value forward. Over time, even a slight imbalance of undervaluation can have a significant effect on the property values in a community, and hence on the accumulated wealth of homeowners in that community. This effect can hinder families in that community from leveraging equity to pay for college, pay for repairs, or use as a buffer during a financial hardship. Reduced property values can also diminish the property tax revenue that funds the maintenance and improvement of community schools and amenities.¹

Appraisal bias can occur at a personal level, a geographic level, or both. By personal level bias we mean that an appraisal offers a biased opinion of value because of the racial/ethnic identity of the homeowner. Bias at the geographic level occurs when an appraisal offers a biased opinion of value because of the racial/ethnic make-up of the neighborhood within which a property is located. **Analysis of the public appraisal data suggests the presence of systematic appraisal bias that undervalues homes in predominantly Black**

¹ PAVE, pp. 3-4.

communities in Baltimore City and the surrounding counties. While these public data speak only to bias at a geographic or neighborhood level, several lawsuits – including at least one in Baltimore City – allege bias at the personal level. Regardless of the source of the bias, appraisal discrimination deprives homeowners of housing wealth and equity that should accrue from rising market values.

While these racial differences in appraisal accuracy have diminished somewhat in recent years, troubling patterns persist. Neighborhoods with larger non-white populations tend to experience a higher percentage of homes with appraised values that are lower than the contract sale price than what is observed in predominantly white neighborhoods. Conversely, predominantly white, non-Hispanic neighborhoods tend to experience a higher percentage of homes with appraised values that exceed the contract price. Even if these differences are small on the level of an individual property (a fact that cannot be ascertained with these public data), they compound over time and can have multi-generational, systemic effects.

In 2022, the Maryland General Assembly created the Task Force on Property Appraisal and Valuation Equity, which adopted a series of recommendations in November, 2024, to prevent appraisal bias or to provide home purchasers or owners with recourse to correct it when it

occurs. Establishing the degree or prevalence of appraisal bias in Maryland was outside of the task force’s scope, but this report fills that gap and bolsters the need for state policymakers to consider the recommendations, which are the subject of several bills in the current General Assembly session.

This report examines newly available public data from the Federal Housing Finance Agency’s (FHFA) Uniform Appraisal Dataset (UAD) to analyze potential racial bias in home appraisals in the Baltimore metropolitan area from 2013-2022.

The key findings are:

- In the counties surrounding Baltimore, predominantly non-white, non-Hispanic neighborhoods tended to have higher rates of undervalued appraisals below the contract sale price.
- Conversely, predominantly white, non-Hispanic neighborhoods had higher rates of overvalued appraisals above the contract price.
- In Baltimore City specifically, predominantly non-white, non-Hispanic neighborhoods – which, in the Baltimore context, typically means predominantly Black neighborhoods – were almost twice as likely to have undervalued appraisals compared to white neighborhoods.
- Predominantly non-white, non-Hispanic areas in Baltimore City also had the lowest rates of overvalued appraisals exceeding contract prices.



The UAD, first made public in late 2022, provides unprecedented transparency into the activity of the nation's appraisers. However, the FHFA's initial releases of these data had serious limitations because the UAD did not include appraisals connected to FHA/VA/USDA lending, which are more prevalent among borrowers of color.^{2,3}

Recently, the FHFA released UAD data inclusive of government-issued loans. These new data certainly warrant further analysis. However, counties – rather than census tracts – are the smallest level of geography for FHA-related appraisals represented in the UAD, making it insufficiently precise to generate a fulsome understanding of appraisal disparities at the neighborhood level.

2 On October 28, 2024, FHFA announced that data on FHA-insured mortgages are now included in the most recent release of the UAD. They however state: "UAD conforming single-family appraisals submitted to the FHA have been added to the UAD Aggregate Statistics. Data for this appraisal source is available at the national-, state-, metro area-, and county-level geographies from 2017 through the second quarter of 2024." See: <https://www.fhfa.gov/sites/default/files/2024-11/UAD-Aggregate-Statistics-Data-File-Version-History-and-Suppression-Rates.pdf>

3 In 2022, government-insured loans represented 38.1% of all originated home purchase mortgages in the City of Baltimore; the percentage was 37.3% in 2021. Source: PolicyMap "Home Mortgage Report of City: Baltimore".

Introduction

Racial bias in home appraising has only in the last few years captured the attention of policymakers, the media, and, more generally, the public. An appraiser's consideration of a homeowner's (or aspirational homeowner's) race – or the race of a community within which a home is located – in valuing property has been banned by the federal Fair Housing Act since its enactment in 1968.⁴ But explicit racial bias in home appraising was a feature of the professional appraiser guidance until nearly a decade later (1976), when the United States Department of Justice sued the American Institute of Real Estate Appraisers, et al., alleging violations of the federal Fair Housing Act. In the settlement of this suit, the defendants agreed that:

“(1) It is improper to base a conclusion or opinion of value upon the premise that the racial, ethnic, or religious homogeneity of the inhabitants of an area or [of] a property is necessary for maximum value.

(2) Racial, religious or ethnic factors are deemed unreliable predictors of value trends or price variance.

(3) It is improper to base a conclusion or opinion of value, or a conclusion with respect to neighborhood trends, upon stereotyped or biased presumptions relating to race, color, religion, sex or national origin or upon unsupported presumptions relating to the effective age or remaining life of the property being appraised or the life expectancy of the neighborhood in which it is located.”⁵

Notwithstanding the fact that consideration of race in appraising is illegal under established law, it still appears to happen. In 2021, Nathan Connolly and Shani Mott, a married couple who were both professors at Johns Hopkins University, sought to refinance their home in Baltimore's Homeland neighborhood. As part of the process, they opened their home to an appraiser, expecting that the tens of thousands of dollars in improvements they had made to the house and the sharp appreciation in Baltimore's housing market would lead to a significantly higher valuation than the \$450,000 they had purchased it for in 2017. It did not, and Dr. Connolly, a professor of history whose work

⁴ See: Robert G. Schwemm, Housing Discrimination and the Appraisal Industry, in Mortgage Lending, Racial Discrimination, and Federal Policy 365-397 (John Goering and Ron Weink eds., 1996).

Heather R. Abraham, Appraisal Discrimination: Five Lessons for Litigators, 76 SMU Law Review 205 (2023).

⁵ See: <https://law.justia.com/cases/federal/district-courts/FSupp/442/1072/2285128/>

focuses on the impact of race in the housing market, had a suspicion about the cause of the low valuation: He and his family are Black.

To test their suspicion, Drs. Connolly and Mott removed their family pictures from the walls and had a white colleague stand in for them when a second appraiser valued the home. The difference was stark. After the home had been “whitewashed,” the second appraiser valued it nearly \$300,000 higher.

They sued and in February 2024 reached a settlement with their mortgage lender, loanDepot.com, LLC.⁶ The case against the appraiser continues to be litigated. This is but one of a handful of high-profile recent suits related to racial bias in home appraisals.⁷ Racial bias in home appraising has long been illegal, but until recent years, the litigation history of such cases has been quite limited.

What is meant by a discriminatory real estate appraisal? An example is **estimating (or judging) the value of a family’s home and considering in that estimation of value the person’s race or ethnicity – or the racial or ethnic composition of the neighborhood within which that family lives.** As quoted

above from the PAVE Task Force Action Plan, such an act is not only illegal, but it also has immediate and long-term systemic consequences.

For example, a homeowner whose home has an appraised value that is artificially low because they are a person of color may not be able to realize the full, appreciated value of their home for purposes of a sale or a mortgage refinance. They may be required to pay a higher interest rate, come up with a larger downpayment, or even pay for private mortgage insurance that would not otherwise be required. For neighbors of that homeowner, that artificially lower price constitutes an improperly devalued “comparable,” which impacts all sellers (and refinancers) around them. Although home appraising and property assessments for tax purposes are very different endeavors, appraised values that diminish sale prices can adversely impact a locale’s tax base by serving as inputs into Computer Assisted Mass Appraisal (CAMA) models. Biased appraisals – even ones not nearly as consequential as the one alleged in the case of Drs. Connolly and Mott – can over time build on one another to produce systemic adverse consequences.

To date, systematic research on home appraisal bias is limited,⁸ and oftentimes is focused on

⁶ In settling the case, loanDepot.com denied and continued to deny the discrimination alleged by Connolly and Mott. See: <https://www.relmanlaw.com/assets/htmldocuments/Connolly%20loanDepot%20-%20Settlement%20Agreement%20-%20fully%20executed.pdf>

⁷ See, for example: <https://www.nytimes.com/2022/08/18/realestate/housing-discrimination-maryland.html> or <https://www.npr.org/2023/03/09/1162103286/home-appraisal-racial-bias-black-homeowners-lawsuit> or <https://www.nytimes.com/2024/11/01/realestate/home-appraisal-discrimination-rocket-mortgage.html?smid=url-share>

⁸ See, for example: James H. Carr and Michael Zonta, Disparities in the Estimated Valuation of Homes by Neighborhood Racial Composition (2024). Accessed on November 8, 2024. http://www.nareb.com/site-files/uploads/2024/10/Home-Appraisals-in-Black-and-White_Final_10.21.24.pdf

Freddie Mac, Racial and Ethnic Valuations Gaps in Home Purchase Appraisals (2021). Accessed on December 18, 2023 at <https://www.freddiemac.com/fmac-resources/research/pdf/202109-Note-Appraisal-Gap.pdf>

Jake Williamson and Mark Palim, Appraising the Appraisal: A closer look at divergent appraisal values for Black and white borrowers refinancing their home (2022). Accessed on December 18, 2023 at <https://www.fanniemae.com/media/42541/display>

differences in value⁹ by racial composition of neighborhoods and by inference, bias in home appraisal. That is because until very recently, there was no comprehensive public data reflective of appraisal activity. This stands in direct contrast to a more widely studied (and related) topic, discrimination in mortgage lending; lenders for many years have had an obligation to publicly report on their activity¹⁰ while appraisers still do not.

New data offer us an important, if still limited, way to assess appraisal bias. Since 2022, the Federal Housing Finance Agency (FHFA) has released an increasingly elaborate public database containing information on home appraisals conducted for mortgages associated with the nation's Government Sponsored Enterprises (GSEs) – Fannie Mae and Freddie Mac. The public database used in this analysis, known as the UAD (or Uniform Appraisal Dataset), while

containing literally millions of records, does not contain all GSE transactions.¹¹ And until recently, the UAD excluded appraisals connected with mortgages insured by the FHA, VA, and USDA. But even with its most recent inclusion in the UAD, owing to the continued absence of the FHA data at the census tract level, the UAD has a significant information gap if the intended use is to examine patterns of racial bias *at the neighborhood level*.¹² [See fn 3] While GSE-related mortgages represent quite a substantial portion of the market,¹³ these mortgages represent a differential share of the market when examined by the racial/ethnic characteristics of the borrower and racial/ethnic composition of the neighborhood where the home is located.¹⁴ Records in the UAD reflect only traditional appraisals captured on the Uniform Residential Appraisal Report (URAR). The GSEs may waive¹⁵ traditional appraisals in certain instances, and

9 See, for example: Junia Howell and Elizabeth Korver-Glenn, The Increasing Effect of Neighborhood Racial Composition on Housing Values, 1980-2015, 68 *Social Problems* 1051 (2021).

Junia Howell and Elizabeth Korver-Glenn, Neighborhoods, Race, and the Twenty-first-century Housing Appraisal Industry, 4(4) *Sociology of Race and Ethnicity* 473 (2018).

Jonathan Rothwell and Andre M. Perry, How Racial Bias in Appraisals Affects the Devaluation of Homes in Majority Black Neighborhoods (2022). Accessed on December 18, 2023 at <https://www.brookings.edu/articles/how-racial-bias-in-appraisals-affects-the-devaluation-of-homes-in-majority-black-neighborhoods/?b=1>

10 See: <https://www.ffiec.gov/hmda/history2.htm>

11 And unlike data made public because of the Home Mortgage Disclosure Act, the UAD is aggregated to geographic areas such as census tracts or counties and does not contain the number of the appraiser (or appraisal firm or AMC) and thus its utility for monitoring for individual- or firm-level discrimination is limited. FHFA recently released an appraisal level database, but it too is deidentified as to the appraiser and it is a 5% sample of records

12 For a more complete description of the UAD, see: <https://www.fhfa.gov/DataTools/Documents/UAD-Data-Files/The%20UAD%20Aggregate%20Statistics%20Data%20File%20Overview.pdf>

13 The CFPB reports that in 2022, of the 3.5 million originated first-lien, principal residence home purchase mortgages, 2.5 million (71.9%) were conventional and 991 thousand (28%) were nonconventional, including FHA, VA and FSA/RHS. Among refinance transactions, there were 1.9 million originations for first-lien principal residences of which 1.5 million (80.3%) were conventional and 375 thousand (19.7%) were nonconventional. https://files.consumerfinance.gov/f/documents/cfpb_data-point-mortgage-market-activity-trends_report_2023-09.pdf

14 See, for example: <https://www.urban.org/sites/default/files/2023-09/Housing%20Finance%20At%20A%20Glance%20Monthly%20Chartbook%20September%202023.pdf>

15 Mortgages for which the appraisal has been waived by the GSE currently comprise approximately 20% of both purchase and refinance transactions. This is well off peak rates in late 2021. See: <https://www.aei.org/wp-content/uploads/2024/12/GSE-Appraisal-Waiver-Infographic-October-2024-Final.pdf?x85095>

so those data are not reflected in the UAD. Accordingly, although the UAD offers an important window into appraisal activity, it should not be confused with the universe of appraisal activity – or necessarily equally representative of appraisals connected with people and/or communities of color. **The result of this data limitation is that a disproportionate share of appraisals connected with Black borrowers is excluded from these data, meaning that any evidence it provides of racial bias in appraisals potentially understates the problem.**

The Abell Foundation commissioned Reinvestment Fund to conduct this analysis of appraisal activity focused on the Baltimore metropolitan area for the period 2013-2022. Counties in the Baltimore metro area include Baltimore City and Anne Arundel, Baltimore, Carroll, Harford, Howard, and Queen Anne’s counties. Appraisal data are presented separately for transactions involving a home purchase versus a mortgage refinance. In home purchase transactions, we have an ability to examine the degree to which appraisals are consistent with the contract sale price, referred to herein as *appraisal accuracy*.

This report begins with a description of the volume, value, and accuracy of appraisal activity for each county in the region. That is followed by a more detailed description of the patterns of appraisal accuracy, differentiated by the racial/ethnic composition of the neighborhood within which the appraisal was conducted. For this portion of the analysis, we focus on Baltimore City (hereafter, Baltimore) as differentiated from remainder of the region. Key observations from the neighborhood level analysis are:

- Neighborhoods with a predominant percentage

of residents who are not-white, not-Hispanic tend to have higher rates of underappraising than neighborhoods that are predominantly white, not-Hispanic.

- Neighborhoods with a predominant percentage of residents who are not-white, not-Hispanic tend to have lower rates of overappraising than areas that are predominantly white, not-Hispanic.
- Between 2018 and 2022, these patterns show signs of improvement, but they remain observable in the data.

The volume of FHA lending, and its disproportionate market share in communities of color, means that GSE appraisal activity does not fully and equally represent appraisals across Baltimore.

Reinvestment Fund examined data from the 2018-2022 Home Mortgage Disclosure Act database for the city of Baltimore which shows that FHA comprises approximately 30% of all originated home purchase loans. In 2022, FHA comprises more than 45% of all originated purchase loans in substantially minority census tracts (50%+ minority residents) but only 8% in substantially non-minority tracts.

The market share of FHA loans among Black borrowers is 58.8% in 2022, down from 62.7% in 2018. That contrasts with a 10.9% market share among white borrowers in 2022, down from 16.7% in 2018.

Therefore, an analysis of appraisals tied to GSE-related mortgages is one that differentially misses the predominantly Black neighborhoods and Black residents of Baltimore. While we have no alternative to the UAD database, it is important to be transparent about the omission and its potential to bias the results.

Volume of Appraising

Table 1 presents the raw count of appraisals associated with home purchase transactions.¹⁶ Most counties trended similarly, generally growing in volume through 2021 and then falling off substantially in 2022. The decline in activity follows along with the dramatic rise in mortgage interest rates starting in late 2021 throughout most of 2022 (see Figure 1).

In the earlier years of the period covered, Baltimore's appraisal volume generally comprised 15%-17% of all appraisals in the region; that rose to 20% in 2021 and 22% by 2022. At 22%, Baltimore's share of appraisals exceeded its share of the region's owner-occupied housing stock (16%).

Table 1: Number of Appraisals for Home Purchase Transactions, 2013-2022

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total	Trend
Anne Arundel	3,676	4,009	4,569	5,163	5,576	5,647	6,116	7,069	7,504	5,562	54,891	
Baltimore	4,697	5,151	6,046	6,227	6,407	6,547	6,587	7,696	8,904	7,031	65,293	
Carroll	1,193	1,356	1,530	1,667	1,636	1,673	1,740	2,020	2,082	1,575	16,472	
Harford	1,572	1,648	2,064	2,113	2,202	2,312	2,477	2,981	3,200	2,261	22,830	
Howard	2,825	2,684	3,061	3,261	3,378	3,141	3,214	3,017	3,591	2,852	31,024	
Queen Anne's	396	385	512	490	560	524	545	765	795	533	5,505	
Baltimore City	2,616	2,835	3,329	3,711	4,054	4,131	4,122	5,196	6,519	5,599	42,112	
Region	16,975	18,068	21,111	22,632	23,813	23,975	24,801	28,744	32,595	25,413	238,127	
Balt as % of total	15.4%	15.7%	15.8%	16.4%	17.0%	17.2%	16.6%	18.1%	2.0%	2.20%	1.77%	

Table 3 presents mortgage refinance volume for the same period. As observed among home purchase mortgages, volume dropped off across the region precipitously in 2022; rising interest rates throughout the year dampened

refinance activity. Over time, Baltimore's share of appraisals conducted along with mortgage refinances tended to be in the 10%-14% range but peaked at 22% in 2022.¹⁷

¹⁶ As noted earlier, the UAD includes only a subset of all appraisals conducted for home purchases refinances. Over time, the UAD's coverage has improved, but it is important to restate that it is not the universe of all appraisals associated with all purchases and mortgage refinances. For example, the Baltimore Neighborhood Indicators Alliance (BNIA) reports that in 2019, there were 12,872 home sales in the city of Baltimore (<https://bniajfi.org/indicators/Housing%20and%20Community%20Development/shomes>). That compares to 4,122 appraisals for home sales in the UAD.

¹⁷ To examine the proportionality of this, Reinvestment Fund analyzed the 2017-2021 American Community Survey which shows that of the 519,000 homes in the region with a mortgage, Baltimore's 80,810 comprise 15.6%. This is reasonably consistent with Baltimore's share of refinance appraisals; by 2022 though, with Baltimore comprising 22.3% of all refinance-related appraisals, that share outstripped by more than 7 percentage points its share of homes with a mortgage in the region.

Table 2: Count of Housing Units by Tenure and County, 2021

Tenure of the Baltimore Region's Housing Stock, 2021	Anne Arundel County, Maryland	Baltimore County, Maryland	Carroll County, Maryland	Harford County, Maryland	Howard County, Maryland	Queen Anne's County, Maryland	Baltimore City, Maryland	Regional Total
Total Occupied Housing Units	218,682	326,932	62,907	97,468	118,037	18,914	244,893	1,087,833
Owner occupied	163,026	217,247	52,153	77,496	86,089	15,419	117,377	728,807
Renter occupied	55,656	109,685	10,754	19,972	31,948	3,495	127,516	359,026
County's pct of region's owners	22.4%	29.8%	7.2%	10.6%	11.8%	2.1%	16.1%	
County's pct of region's renters	15.5%	30.6%	3.0%	5.6%	8.9%	1.0%	35.5%	
County's pct of region's total	20.1%	30.1%	5.8%	9.0%	10.9%	1.7%	22.5%	

Figure 1: 30-Year Fixed-Rate Mortgage Interest Rates, 2013 (January) - 2023 (November)**Table 3: Number of Appraisals for Refinance Transactions, 2013-2022**

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total	Trend
Anne Arundel	7,017	3,935	6,060	6,991	4,210	3,098	5,597	10,209	8,550	2,680	58,347	
Baltimore	6,617	3,927	5,878	7,371	4,691	3,518	5,838	10,117	9,903	3,762	61,623	
Carroll	2,217	1,337	1,904	2,426	1,386	975	1,695	2,941	2,448	842	18,171	
Harford	2,557	1,457	2,108	2,534	1,777	1,311	2,265	3,866	3,210	1,162	22,247	
Howard	4,607	2,425	3,853	4,482	2,091	1,296	2,838	5,092	3,921	1,018	31,623	
Queen Anne's	692	360	596	730	445	310	658	1162	916	315	6,184	
Baltimore City	2,945	1,993	2,732	3,017	2,183	1,818	2,423	46,02	5,200	2,799	29,712	
Region	26,652	15,434	23,131	27,551	16,783	12,326	21,314	37,989	34,148	12,579	227,907	

Value of Appraisals

The value of appraisals trended up over time and in each county of the region; that is true for appraisals related to home purchases (Table 4) and home mortgages being refinanced (Table 5). Note that Baltimore's median appraised values for both purchases and refinances is

substantially lower than other counties in the region; the next closest value county is Baltimore County. Median appraised values for home purchase transactions grew faster in suburban counties than they did in Baltimore.

Table 4: Median Appraised Value for Home Purchase Transactions, 2013-2022

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Trend
Anne Arundel	\$375,000	\$368,000	\$365,500	\$380,000	\$390,000	\$400,000	\$400,000	\$425,000	\$452,000	\$480,000	
Baltimore	\$267,000	\$268,000	\$262,800	\$280,000	\$283,000	\$285,000	\$290,000	\$300,000	\$330,000	\$345,000	
Carroll	\$327,000	\$315,000	\$320,000	\$332,500	\$340,000	\$346,000	\$351,000	\$376,000	\$413,500	\$438,000	
Harford	\$285,000	\$295,000	\$297,800	\$310,000	\$307,000	\$310,000	\$320,000	\$333,000	\$365,000	\$385,000	
Howard	\$460,000	\$465,500	\$470,000	\$475,000	\$490,000	\$511,750	\$500,000	\$525,000	\$561,000	\$630,000	
Queen Anne's	\$340,000	\$340,000	\$341,300	\$354,000	\$358,000	\$360,000	\$375,000	\$415,000	\$440,000	\$485,000	
Baltimore City	\$230,000	\$225,000	\$225,000	\$230,000	\$230,000	\$225,300	\$228,800	\$238,000	\$250,000	\$255,000	

Appraisals associated with mortgage refinances similarly show lower typical values in Baltimore throughout the period.¹⁸ A comparison of Baltimore to Howard County in 2013 (\$200,000

v. \$490,000) and 2022 (\$204,000 v. \$600,000) shows that median appraised values for properties being refinanced increased at a far greater rate in Howard (22.4%) than Baltimore (2%).

Table 5: Median Appraised Value for Refinance Transactions, 2013-2022

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Trend
Anne Arundel	\$405,000	\$393,000	\$405,000	\$415,000	\$385,000	\$385,000	\$425,000	\$450,000	\$455,000	\$449,500	
Baltimore	\$300,000	\$280,000	\$305,000	\$315,000	\$277,000	\$270,000	\$315,000	\$331,000	\$323,000	\$315,000	
Carroll	\$357,000	\$355,000	\$365,000	\$365,000	\$353,000	\$355,000	\$385,000	\$408,000	\$425,000	\$430,000	
Harford	\$320,000	\$320,000	\$328,000	\$335,000	\$323,000	\$314,000	\$352,000	\$382,000	\$378,500	\$369,400	
Howard	\$490,000	\$500,000	\$500,000	\$500,000	\$500,000	\$495,000	\$545,000	\$560,500	\$625,000	\$600,000	
Queen Anne's	\$369,000	\$375,000	\$378,500	\$380,300	\$372,000	\$363,500	\$412,500	\$420,000	\$450,000	\$463,000	
Baltimore City	\$200,000	\$182,000	\$218,600	\$230,000	\$175,000	\$166,800	\$208,000	\$254,500	\$230,000	\$204,000	

¹⁸ Comparing median home values from the American Community Survey in 2021 for the metro area counties shows relative consistency between values for homes with mortgages (a more proper comparison for mortgage refinances) and appraised values. For example, Baltimore's median value for homes with a mortgage in 2021 (\$193,000) is quite similar to the median appraised value of mortgage refinances (\$204,000). Howard County's median appraised value for homes with a mortgage (\$486,700) is substantially lower than the median appraised value in 2021 (\$625,000).

Evaluating Appraisal Accuracy

There are a few indicators in the UAD that allow for an evaluation of the accuracy of appraisals – particularly for appraisals associated with home purchases. That is, UAD reports the percentage of appraisals that are above, below, or equal to the contract sale price. This is an important set of indicators because, assuming the contract sale price is the result of an arms-length transaction¹⁹ where a buyer and seller agree on a price, that agreed-upon price should be reasonably close to the appraised value. Patterns of appraisals that are below or above the contract price, especially when those differences are associated with the

racial/ethnic composition of the neighborhood within which properties are located, raise the specter of racial bias in appraising.

Table 6 shows the percentage of appraisals exactly equal²⁰ to the contract sale price, by county and year.²¹ Over time – and across counties – the percentage of appraisals equal to the contract sale price seems to have risen slightly; there is a coalescence around approximately a quarter of appraisals being equal to the contract sale price. Baltimore is slightly above that level, Queen Anne’s a bit below.

Table 6: Percent of Appraisals Equal to the Contract Sale Price, 2013-2022

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Trend
Anne Arundel	24.1%	20.1%	19.8%	22.5%	22.0%	21.4%	22.5%	26.2%	27.9%	25.7%	
Baltimore	22.8%	22.2%	22.2%	22.8%	24.4%	24.5%	23.5%	28.6%	28.9%	26.5%	
Carroll	20.5%	21.2%	19.7%	21.5%	23.0%	24.1%	21.0%	26.5%	25.6%	24.8%	
Harford	20.1%	18.8%	19.3%	17.7%	21.6%	20.3%	23.0%	27.0%	26.4%	25.2%	
Howard	20.6%	20.6%	21.9%	22.8%	24.4%	25.0%	26.6%	30.4%	28.9%	25.8%	
Queen Anne's	14.9%	15.8%	11.9%	17.1%	21.6%	20.2%	19.6%	22.4%	20.8%	22.1%	
Baltimore City	23.5%	22.0%	22.9%	24.1%	22.4%	23.0%	23.4%	26.2%	29.6%	27.5%	

There has been a general decline in the percentage of appraisals coming in above the contract sale price. Baltimore’s percentage has declined from the low 70s in the early part of the period

to 62.7% in 2022. It is, however, not the lowest percentage in the region; lower percentages are observed in Harford and Baltimore counties – both of which are under 60%.

¹⁹ The phrase “arms-length” is generally understood to represent a transaction in which the buyer and seller are essentially acting independently. In an arms-length transaction, both parties are assumed to be acting in their own interest.

²⁰ Given that “An appraisal is an independent assessment of the value of the property” (<https://www.consumerfinance.gov/ask-cfpb/what-are-appraisals-and-why-do-i-need-to-look-at-them-en-167/>) it is curious that typically a quarter of appraisals state an opinion of value exactly equal to the contract sale price.

²¹ Assuming that the appraisal is an independent estimate of value, a more useful indicator might be that the appraisal is within a few percentage points of the sale price (e.g., +/- 3-5%); appraisals beyond that range would be indicative of more than an insignificant disagreement over value.

Table 7: Percent of Appraisals Above the Contract Sale Price, 2013-2022

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Trend
Anne Arundel	69.9%	76.2%	76.6%	73.3%	73.3%	74.3%	73.4%	66.1%	61.4%	62.8%	
Baltimore	70.4%	72.7%	73.4%	71.5%	70.0%	70.1%	71.0%	62.3%	56.1%	59.8%	
Carroll	75.4%	75.1%	75.8%	73.8%	72.3%	71.7%	74.0%	66.2%	60.2%	64.5%	
Harford	74.3%	77.1%	76.4%	77.0%	73.3%	74.4%	71.5%	62.5%	57.8%	57.5%	
Howard	72.5%	75.2%	73.8%	71.8%	70.5%	69.0%	68.4%	61.1%	54.6%	60.1%	
Queen Anne's	79.3%	81.6%	84.6%	80.4%	74.6%	76.0%	77.2%	73.9%	73.3%	71.9%	
Baltimore City	71.0%	72.6%	72.0%	70.5%	70.7%	69.9%	70.5%	65.4%	59.1%	62.7%	

Table 8 displays the percentage of appraisals below the contract sale price. Baltimore’s percentage generally rose throughout the period until 2021, peaking at 11.3% then dropping to under 10% in 2022. It is notable

that Baltimore’s percentage is among the lower in the region. The highest percentages are observed in Harford County (17.2%) and Howard County (14.1%).

Table 8: Percent of Appraisals Below the Contract Sale Price, 2013-2022

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Trend
Anne Arundel	6.0%	3.7%	3.7%	4.2%	4.8%	4.3%	4.1%	7.7%	10.6%	11.5%	
Baltimore	6.8%	5.1%	4.4%	5.8%	5.6%	5.4%	5.5%	9.1%	15.0%	13.7%	
Carroll	4.1%	3.7%	4.5%	4.7%	4.7%	4.2%	5.0%	7.3%	14.2%	10.7%	
Harford	5.6%	4.1%	4.3%	5.3%	5.1%	5.2%	5.5%	10.5%	15.8%	17.2%	
Howard	6.9%	4.2%	4.3%	5.3%	5.1%	6.0%	5.0%	8.5%	16.5%	14.1%	
Queen Anne's	5.8%	2.6%	3.5%	2.4%	3.8%	3.8%	3.1%	3.8%	5.9%	6.0%	
Baltimore City	5.5%	5.4%	5.1%	5.5%	6.8%	7.1%	6.1%	8.4%	11.3%	9.9%	



Photo courtesy of Shutterstock

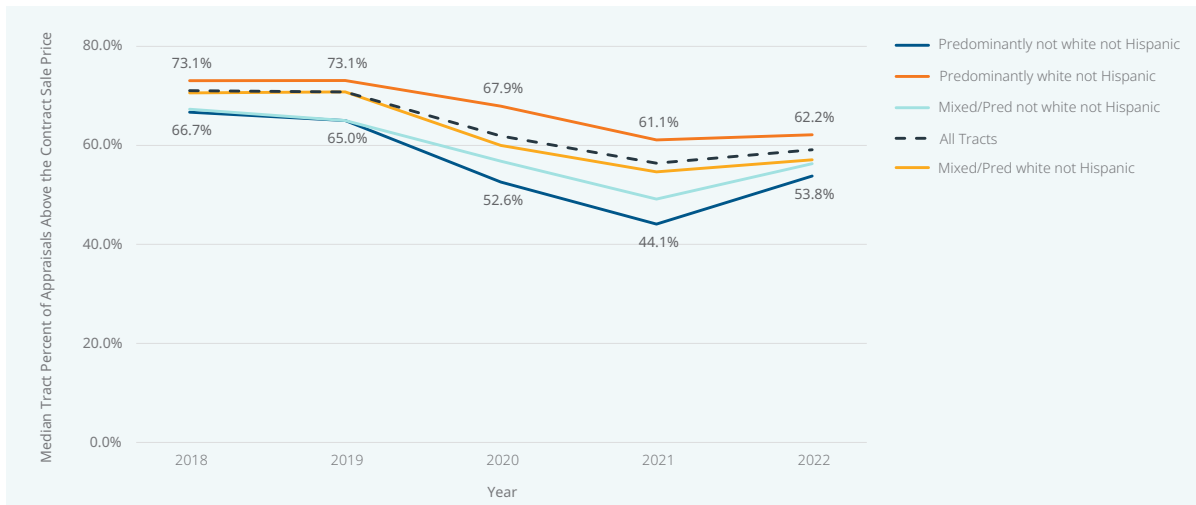
Neighborhood Patterns in Appraisal Accuracy

Thus far, this report has focused on data descriptive of the counties comprising the Baltimore region based on UAD county-level summaries. Counties tend to be relatively heterogeneous areas and are thus not ideal for understanding appraisal patterns associated with a neighborhood's racial composition. UAD data are also available for census tracts, which makes it possible to inquire whether appraisal accuracy is similar across neighborhoods differentiated by racial/ethnic composition. At the tract level, there is a substantial amount of data suppression due to insufficient appraisal volume – more frequent than at the county level and also elevated in communities of color (as detailed in Appendix 3). The implication of differ-

ential suppression is that patterns connected to neighborhood racial/ethnic composition may not fully reflect differences in appraisal accuracy.

Figure 2 presents the typical (median) tract percentage of appraisals that come in above the contract sale price for the Baltimore region, excluding Baltimore. As noted above – at the county level – appraisals above contract sale prices are generally on the decline, across all neighborhood types.²² That said, what we observe is that **over-appraising is more frequent in substantially white, not-Hispanic areas and least frequent in substantially not-white, not-Hispanic areas. Differences between areas are declining, but they remain.**

Figure 2: Median Tract Percentage of Appraisals Above the Contract Sale Price by Tract Racial/Ethnic Composition, 2018-2022 – Baltimore Region (Excluding Baltimore)



²² Tracts are divided into four categories: Predominantly not-white, not-Hispanic (tracts with the percent of residents who define themselves as not white and not-Hispanic is greater than 75%), Mixed/Pred not-white, not-Hispanic (tracts with the percent of residents who define themselves as not white and not-Hispanic is greater than 50% but less than or equal to 75%), Mixed/Pred white, not-Hispanic (tracts with the percent of residents who define themselves as white, not-Hispanic is greater than 50% and less than or equal to 75%), and Pred white, not-Hispanic (tracts with the percent of residents who define themselves as white, not-Hispanic is greater than 75%).

Figure 3 presents the typical tract percentage of appraisals below the contract sale price for the Baltimore region (excluding Baltimore); these percentages have been on the rise (with general slight pull-back between 2021 and 2022). In this

instance, **underappraising is most frequent in substantially not-white, not-Hispanic areas and least frequent in substantially white, not-Hispanic areas.**

Figure 3: Median Tract Percentage of Appraisals Below the Contract Sale Price by Tract Racial/Ethnic Composition, 2018-2022 – Baltimore Region (Excluding Baltimore)

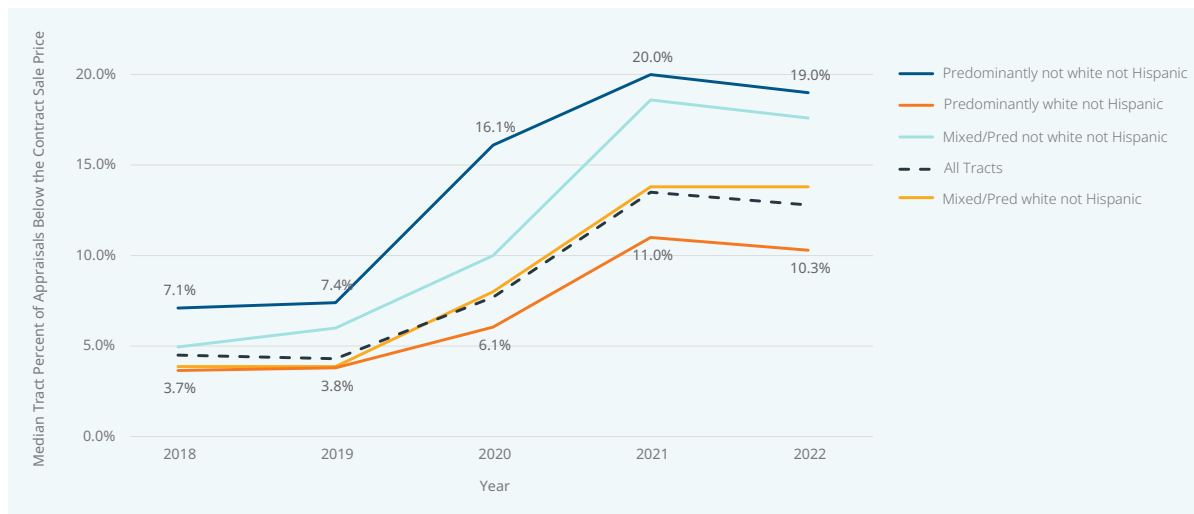
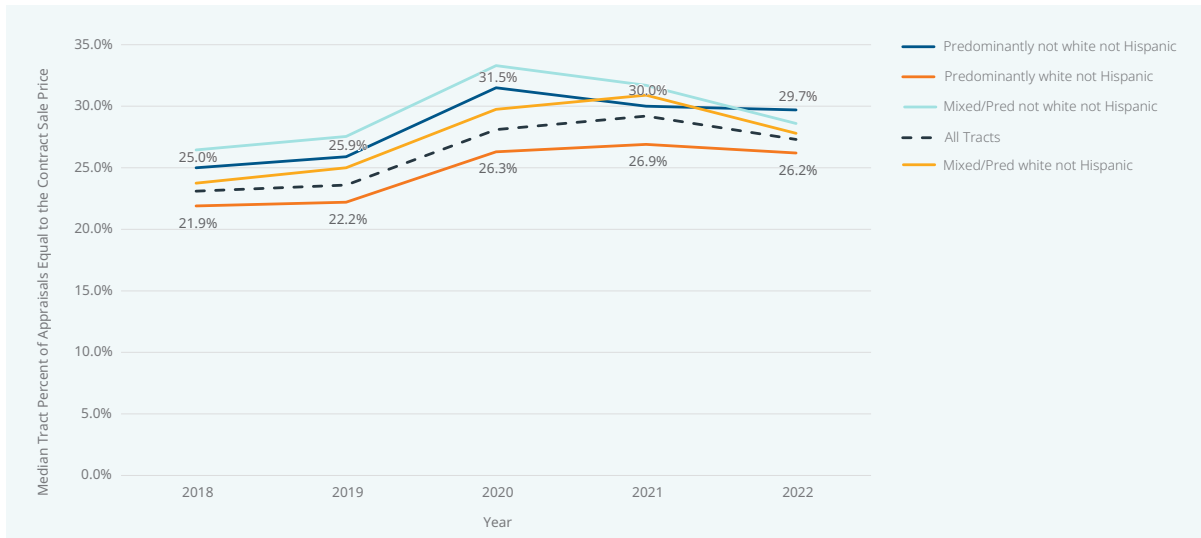


Figure 4 presents the percentage of appraisals reported that are exactly equal to the contract sale price for the Baltimore region (excluding Baltimore). These percentages are on a modest rise, across all tract groupings. **In 2021 and 2022, tracts that are substantially not-white, not-Hispanic have the highest percentage equal to the contract sale price, and across all years, substantially white, not-Hispanic tracts have the lowest percentage.** The difference for these tracts is apparently a result of the substantially greater typical percentage of appraisals above the contract sale price.

Thus, **not-white, not-Hispanic areas across the Baltimore region (excluding Baltimore) tend to more frequently experience appraisals that are below the contract sale price while white, not-Hispanic areas more frequently experience appraisals that are above the contract sale price.** While the percentage differences may not seem extreme, bear in mind that there is also more data suppression in the not-white, not-Hispanic areas, potentially blunting the differences observed.

Figure 4: Median Tract Percentage of Appraisals Equal to the Contract Sale Price by Tract Racial/Ethnic Composition, 2018-2022 – Baltimore Region (Excluding Baltimore)



The pattern in Baltimore is quite similar. Figures 5 through 7 represent appraisal data only for the city of Baltimore. Figure 5 shows that, over the time period examined, **areas in Baltimore that have the highest percentages of white, not-Hispanic populations (and mixed/predominantly white, not-Hispanic) have the highest percentages of appraisals greater than the contract sale price; areas with the**

higher percentage of residents who are not-white, not-Hispanic – which in this context generally means predominantly Black neighborhoods -- have the lowest percentages of appraisals above the contract sale price. It is worth noting, though, that the difference across tract grouping was notably lower in 2022 than it was in prior years. [See also Appendix 2, Map 1 & Map 4]

Figure 5: Median Tract Percentage of Appraisals Above the Contract Sale Price by Tract Racial/Ethnic Composition in Baltimore, 2018-2022

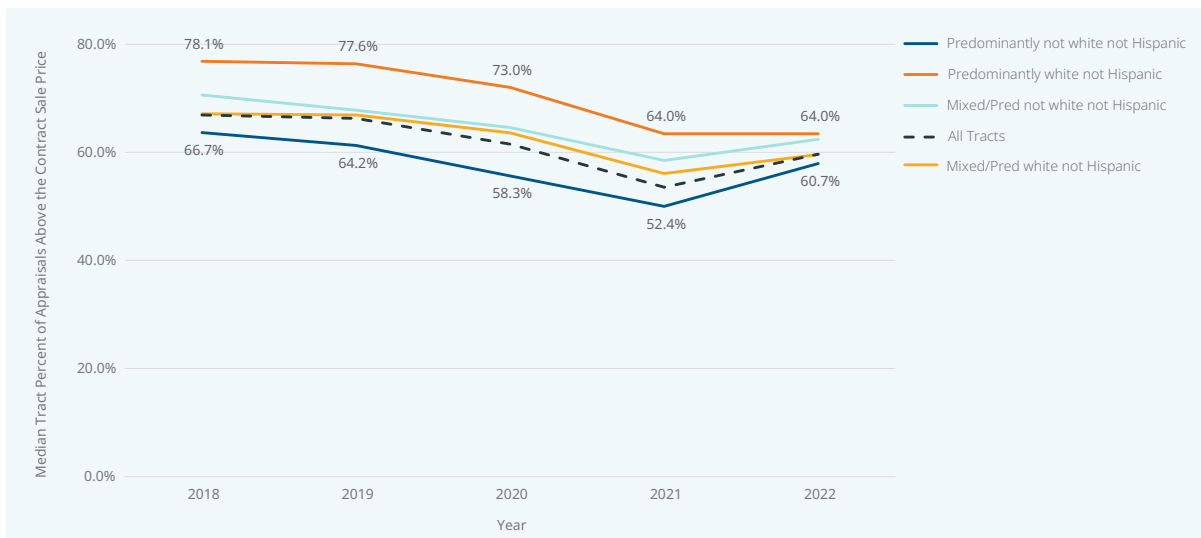


Figure 6 presents data on instances of appraisals coming in below the contract sale price in Baltimore. It shows **that the likelihood of underappraising (13.3% in 2022) is substantially greater in predominantly not-white, not-Hispanic areas (7.3%). In fact, that likelihood is almost twice as great in predominantly not-white, not-Hispanic areas than**

it is in predominantly white, not-Hispanic areas. A similar disparity in underappraising is observed in predominantly not-white, not-Hispanic areas (19%) in the Baltimore region (excluding Baltimore City) compared to predominantly white, not-Hispanic areas (10.3%). [See Appendix 2, Maps 2 & 5; Appendix 4]

Figure 6: Median Tract Percentage of Appraisals Below the Contract Sale Price by Tract Racial/Ethnic Composition in Baltimore, 2018-2022

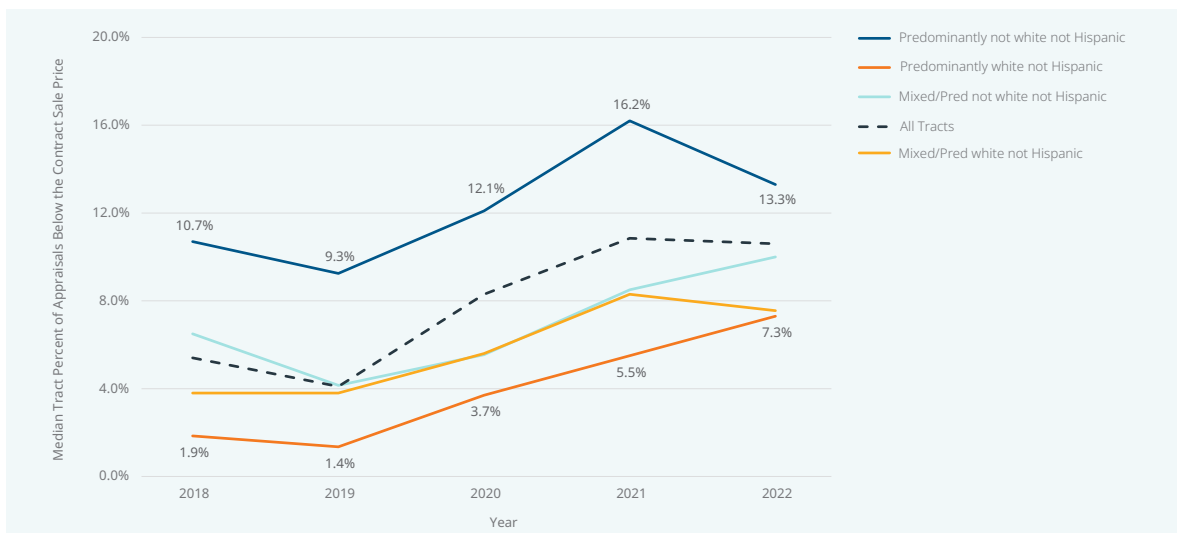


Figure 7: Median Tract Percentage of Appraisals Equal to the Contract Sale Price by Tract Racial/Ethnic Composition in Baltimore, 2018-2022

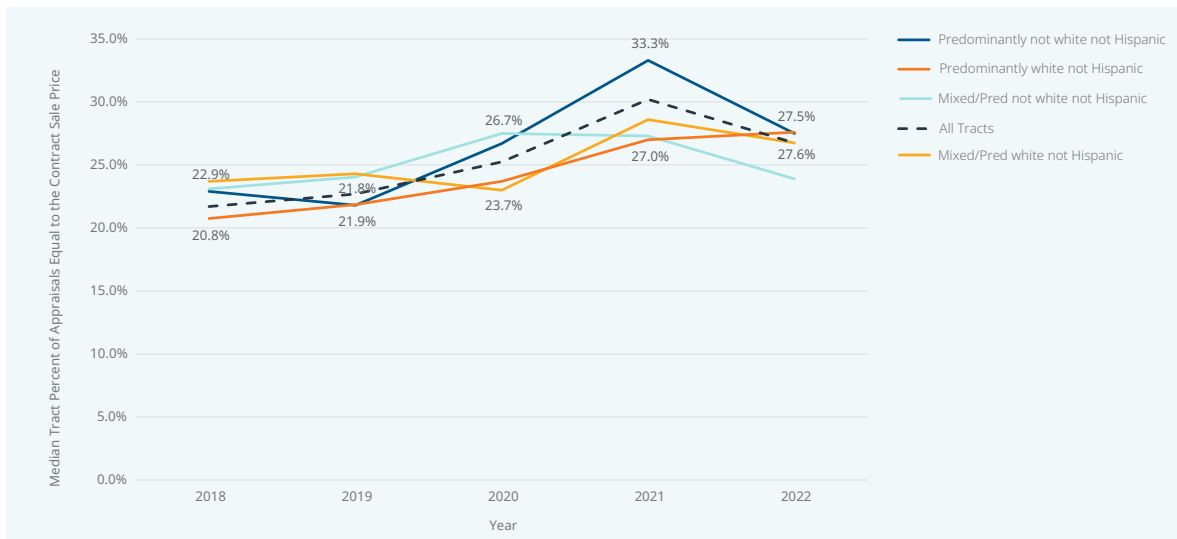


Figure 7 shows that **predominantly not-white, not-Hispanic areas also tend to have the highest percentage of appraisals exactly equal to the contract sale price for much of**

the period examined. That said, differences across all the tract types are small (in some instances less than a percentage point or two). [See Appendix 2, Maps 3 & 6]

Conclusion

Notwithstanding the data deficiencies, there is evidence to suggest that **appraisals in communities of color in Baltimore and the surrounding region are arguably differentially accurate. Importantly, the nature of the inaccuracies suggests a disadvantage to communities of color where appraisals more frequently come in below the contract sale price (compared to their white, not-Hispanic counterparts) and less frequently above the contract sale price.** Over time, the differences have diminished (a fact reported in some of the research cited in footnote 8) – and perhaps with the increased public and governmental attention to the issue, differences will continue to decline. But appraisals have an enduring impact on families and communities: they compound on one another and impact not only the individual victims of appraisal bias but also their families and neighbors.

Appraisers may respond that data such as these do not definitively demonstrate discrimination in the appraisal industry. There are many legitimate reasons why an appraisal would be different from a contract sale price (e.g., the

price is inflated by the seller, reasonable differences in how appraisers evaluate the quality of a property or select comparables) – and that is certainly true. But there is no a priori reason that the adverse consequences of these legitimate considerations would cluster in communities that are home to high percentages of people of color. We would expect that errors, or differences of opinion, would be unrelated to a neighborhood’s racial or ethnic composition – but these data show that they are not. And while it is true that there are many ways that other forms of racial bias and discrimination impact the value of homes (e.g., the historical legacy of disinvestment in minority communities, discriminatory real estate practices, homebuyers’ own biases about where they want to live), biased appraisals can have some influence.²³

While FHFA and HUD have just recently augmented the public database with appraisals connected to FHA-insured mortgages, those FHA data are not available at the census tract level, and so the UAD continues to have a critical gap for those seeking to understand the neighborhood level experience of disparities in

²³ Rothwell and Perry (op. cit.) estimate that appraisal bias explains anywhere between 10% and 20% of differences in value in Black neighborhoods; the magnitude of the impact of appraisal bias is contingent on the estimation method used.

appraisal activity. **Appraisal transparency falls well short of that which exists in the mortgage lending industry – and well short of what is needed to examine and monitor the appraisal industry for compliance with the nation’s fair housing laws.**

Policy ideas to prevent and address racial bias in appraisals have surfaced at both the national and state level; some localities²⁴ too have examined the issue and offered solutions. In 2022, the federal Interagency Task Force on Property Appraisal Valuation and Equity (PAVE) submitted to President Biden an action plan for combatting appraisal bias, and Maryland’s equivalent Task Force on Property Appraisal and Valuation Equity followed suit in late 2024. The Biden administration’s PAVE action plan provides a comprehensive set of actions to be taken by several federal agencies across five categories: strengthening guard rails against discrimination in valuation; enhancing fair housing/fair lending enforcement and accountability in the appraisal industry; diversifying the appraiser workforce; empowering consumers to take action against bias; and providing better data and tools to monitor bias. However, with the change in administrations in Washington, it is doubtful that the action plan will continue to be implemented – as of mid-February, the PAVE report had been removed from HUD’s website. For the near future, state level action may be more feasible.²⁵

Not all policy levers are available at the state level; some are the purview of the federal government, and others can be exercised at the

local level. Nonetheless, the Maryland task force suggested a number of potentially impactful steps policymakers could take for its residents. Some highlights include:

- Institute a reconsideration of value process in Maryland modeled after one used by the Department of Veterans Affairs. This process allows lenders or other interested parties to provide relevant information to an appraiser before a valuation is made and requires appraisers to contact the requester of the appraisal for additional information in cases where the appraised value appears likely to be lower than the agreed sales price.
- Require timely reporting of sales of newly constructed residential properties to ensure that the comparable sales appraisers use to determine value reflect changes in communities.
- Create a unit within the state government to provide a third-party review in cases where the reconsideration of value process is insufficient.
- Remove barriers to entry to the appraisal profession for minorities.
 - Expand the use of the Practical Applications of Real Estate Appraisal program, a simulation-based alternative to the traditional model that required prospective appraisers to find a supervising appraiser to complete their training.
 - Eliminate college degree requirements for all levels of appraiser licensure in Maryland.
 - Provide state grant funds to help cover appraiser training costs.

²⁴ See: https://phlcouncil.com/wp-content/uploads/2022/07/PhiladelphiaHomeAppraisalBiasTaskForce_Report_FINAL.pdf

²⁵ We note that as of February 14, 2025, you can no longer connect to the PAVE website. Nor is the Action Plan link operable.

- Establish a system for tracking the race and gender of members of the appraisal profession in Maryland.
- Improve anti-bias training for appraisers by including cultural sensitivity training and content related to conscious and unconscious bias.

Two issues relating to both the federal and Maryland task force reports merit particular attention.

The first is the growing use of AI and technology-based valuation. By limiting subjective criteria, automated processes for underwriting, credit evaluation, and valuation in appraisals might be viewed as tools to reduce opportunities for harmful racial bias, but there is also potential for the automated model to generate biased results that create racial harm. The PAVE Action Plan calls on the federal government to address potential bias in the use of technology-based valuation tools through rulemaking related to Automated Valuation Models (AVMs). The report of the state's Task Force on Property Appraisal and Valuation Equity also has several recommendations related to improving transparency in use of AVMs, requiring justification of value and providing feedback from appraisers who are otherwise excluded from the AVM process. In addition, agencies responsible for fair housing enforcement (including the Maryland Commission on Civil Rights) should consider the state's role in monitoring automated processes for potential racial bias.

The second is the continued availability of data for the public and researchers to monitor for the presence of appraisal bias on the national, state, and local levels. The UAD, on which this report

is based, offers some public access to appraisal records both nationally and locally for the first time. Sharing that information at regular intervals is necessary to enable identification of patterns of persistent appraisal discrimination and opportunities for intervention and reform. As noted in this report, we recommend that appraisals for Federal Housing Administration-insured property transactions also be included in the federal dataset at the census tract level, as well as alternative valuations (such as AVMs) which can substitute for a full appraisal and are accepted by Fannie Mae and Freddie Mac.

A better policy response though would be for Congress to create a reporting regime for appraisers that is more akin to the obligation it created for mortgage lenders when it passed the Home Mortgage Disclosure Act (HMDA).²⁶ Under HMDA, lenders are required to report on most applications for mortgage credit. Public data include, but are not limited to, characteristics of the borrower (e.g., sex, race and ethnicity of the borrower, census tract location of the collateral property) and transaction (e.g., loan amount, action taken, debt-to-income and loan-to-value ratios, income used to qualify for the mortgage). With these data, the public, regulators, researchers and media can understand a lot about the degree to which race and ethnicity play a role in mortgage lending. Absent similar data on appraisals, we are hamstrung in our ability to determine the extent of racial bias and are left in the unenviable position of being able to observe general patterns indicating racial disparities (as we have) but not being able to more rigorously delineate the full impact of racial bias in home appraising.

26 See: https://files.consumerfinance.gov/f/documents/cfpb_beginners-guide-accessing-using-hmda-data_guide_2022-06.pdf

APPENDIX 1:

Evaluating Consistency in the Appraisal Process

The latest release of the UAD included several additional descriptive data elements for completed appraisals; these are data elements drawn directly from a standard appraisal. Each of these descriptors has the potential to be revealing of appraisal bias. For example, the distance of comps from their subject property on an appraisal can be indicative of, for example, bias effectuated by an appraiser who searched farther from the subject property to find a comparable in a Black neighborhood when reasonable comparable properties were available closer by (albeit in a white or mixed-race neighborhood). However, in this aggregated form, their utility is limited to a description of trends and similarities/differences between locales.

The first of those is the typical (mean) distance of “comps” from the subject property. Care is needed to interpret these figures because communities vary greatly in terms of the density and homogeneity of the local housing stock. All else being equal, in denser areas it is easier to find comparable properties than areas that are less dense. To that point, for example, Baltimore City has a housing density of 3,623 units per square mile while Queen Anne’s County’s figure is 57.²⁷ The typical home appraisal in Baltimore has comps drawn within approximately a quarter of a mile. On the other end of the spectrum, typical comps in Queen Anne’s come from more than two miles away. A similar pattern is observed for appraisals conducted as part of a mortgage refinance.

Appendix 1, Table 1: Mean Distance of Comps Used in Home Purchase Transactions, 2013-2022

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Trend
Anne Arundel	0.900	0.830	0.780	0.770	0.750	0.740	0.700	0.700	0.690	0.730	
Baltimore	0.800	0.790	0.730	0.730	0.720	0.700	0.720	0.730	0.720	0.680	
Carroll	1.730	1.680	1.630	1.540	1.620	1.520	1.530	1.570	1.420	1.450	
Harford	1.200	1.130	1.180	1.060	1.040	1.000	0.950	0.930	0.980	1.030	
Howard	0.870	0.830	0.820	0.770	0.750	0.780	0.760	0.760	0.800	0.830	
Queen Anne’s	2.400	2.380	2.200	2.310	2.100	2.310	2.260	2.160	2.000	2.180	
Baltimore City	0.340	0.320	0.320	0.300	0.300	0.290	0.280	0.280	0.270	0.270	

27 See: https://planning.maryland.gov/MSDC/Documents/Census/Census2020/Inside%20Census/County_Population_density.pdf

Appendix 1, Table 2: Mean Distance of Comps Used in Mortgage Refinance Transactions, 2013-2022

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Trend
Anne Arundel	0.900	0.830	0.780	0.770	0.750	0.740	0.700	0.700	0.690	0.730	
Baltimore	0.800	0.790	0.730	0.730	0.720	0.700	0.720	0.730	0.720	0.680	
Carroll	1.730	1.680	1.630	1.540	1.620	1.520	1.530	1.570	1.420	1.450	
Harford	1.200	1.130	1.180	1.060	1.040	1.000	0.950	0.930	0.980	1.030	
Howard	0.870	0.830	0.820	0.770	0.750	0.780	0.760	0.760	0.800	0.830	
Queen Anne's	2.400	2.380	2.200	2.310	2.100	2.310	2.260	2.160	2.000	2.180	
Baltimore City	0.340	0.320	0.320	0.300	0.300	0.290	0.280	0.280	0.270	0.270	

Appendix 1, Tables 3 and 4 show the typical percentage of comps coming from the same census tract as the subject property. In Baltimore the percentage has risen over time for home purchases; in contrast, the other counties

saw those percentages rise through much of the period, and then drop off (e.g., Anne Arundel peaked at 68.9% in 2017 and declined to 61.6% in 2022); Harford peaked at 70% in 2022 and dropped to 63.4% in 2022.

Appendix 1, Table 3: Typical Percentage of Comps in Same Census Tract for Home Purchase Transactions, 2013-2022

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Trend
Anne Arundel	62.0%	63.9%	67.1%	66.8%	68.9%	68.3%	68.2%	66.8%	65.1%	61.6%	
Baltimore	58.3%	58.9%	61.7%	61.9%	62.8%	64.4%	63.1%	61.2%	60.6%	60.0%	
Carroll	55.4%	56.5%	59.0%	59.1%	59.6%	60.0%	60.0%	57.4%	55.7%	52.5%	
Harford	62.6%	62.6%	64.5%	65.6%	66.1%	69.3%	69.8%	70.0%	68.3%	63.4%	
Howard	64.8%	67.3%	67.5%	69.9%	70.5%	69.8%	71.2%	68.8%	65.8%	59.0%	
Queen Anne's	68.1%	67.7%	72.0%	70.5%	72.8%	71.4%	68.5%	69.1%	67.6%	62.7%	
Baltimore City	50.2%	51.4%	52.3%	53.9%	55.5%	56.9%	56.7%	56.6%	57.1%	58.2%	

Considering mortgage refinance appraisals, Baltimore tracks similarly – that is, the percentage has risen fairly steadily with a small dip in

2022. For both home purchases and refinances, almost six in 10 comps for Baltimore properties come from the same census tract.

Appendix 1, Table 4: Typical Percentage of Comps in the Same Census Tract for Mortgage Refinance Transactions, 2013-2022

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Trend
Anne Arundel	60.0%	61.5%	63.2%	65.5%	66.8%	64.5%	66.8%	67.1%	67.7%	67.0%	
Baltimore	56.4%	57.1%	60.7%	61.7%	62.2%	61.1%	62.7%	62.5%	64.0%	63.4%	
Carroll	50.9%	55.5%	57.6%	58.8%	57.1%	57.9%	60.1%	60.8%	59.1%	58.0%	
Harford	60.8%	60.6%	63.7%	65.9%	65.7%	67.7%	67.4%	67.6%	70.6%	69.1%	
Howard	63.8%	65.1%	66.7%	69.4%	69.1%	68.6%	71.4%	69.8%	70.9%	68.4%	
Queen Anne's	62.8%	67.2%	69.6%	71.9%	73.8%	72.2%	73.8%	73.3%	70.3%	71.3%	
Baltimore City	51.2%	52.5%	52.9%	56.6%	57.5%	58.8%	59.3%	59.3%	61.4%	59.6%	

Also new in the UAD is the range in comp values for settled home sale transactions (Appendix 1, Table 5) and mortgage refinances (Appendix 1, Table 6).²⁸ In other words, how varied are the comps from the subject property, on average? For example, are \$100,000 subject properties being compared to other properties with prices between \$90,000 and \$110,000 (a small range) or are \$100,000 subject properties being

compared to other properties ranging between \$50,000 and \$200,000 (a large range). Over time, the percentages across all counties have risen by a few percentage points. Baltimore is on the lower end of the range for home purchases – suggesting that comps are typically more similar in value to the subject property than what is observed in the other counties for home purchases.

Appendix 1, Table 5: Mean Comp Range Percentage for Home Purchase Transactions, 2013-2022

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Trend
Anne Arundel	35.5%	35.8%	36.1%	38.2%	37.5%	66.2%	37.0%	41.4%	41.1%	40.8%	
Baltimore	39.7%	37.7%	38.4%	38.7%	39.6%	39.0%	38.9%	41.8%	43.4%	42.2%	
Carroll	38.5%	37.1%	38.3%	39.0%	38.2%	38.7%	39.0%	41.6%	42.1%	42.2%	
Harford	39.8%	38.9%	38.8%	39.6%	41.0%	40.1%	40.4%	44.4%	43.8%	43.5%	
Howard	38.5%	34.8%	36.3%	37.9%	38.6%	39.1%	38.1%	41.7%	43.2%	41.1%	
Queen Anne's	36.3%	36.8%	35.3%	38.6%	38.7%	35.9%	38.1%	40.4%	39.4%	39.1%	
Baltimore City	36.4%	36.4%	37.7%	38.1%	37.5%	38.4%	37.4%	40.1%	40.6%	40.3%	

The pattern for appraisals related to mortgage refinances is somewhat different. While the percentages all generally rose over the period, Baltimore rose quite substantially, especially between 2021 and 2022. Unlike appraisals

conducted for home purchases in which the range in Baltimore was on the lower end, on refinances, that range is more than four percentage points above the next highest counties (Harford and Howard at 43.2%).

Appendix 1, Table 6: Mean Comp Range Percentage for Mortgage Refinance Transactions, 2013-2022

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Trend
Anne Arundel	36.3%	37.8%	38.5%	38.4%	39.1%	39.8%	39.6%	39.1%	41.0%	42.3%	
Baltimore	38.7%	38.6%	39.8%	39.5%	40.4%	39.9%	40.6%	40.7%	41.7%	42.5%	
Carroll	38.8%	38.8%	39.5%	39.8%	40.4%	39.5%	39.2%	40.0%	42.3%	41.1%	
Harford	38.8%	40.5%	42.4%	42.0%	41.9%	41.4%	41.8%	42.2%	43.1%	43.2%	
Howard	38.9%	38.4%	39.7%	39.4%	40.7%	40.9%	40.5%	40.9%	41.5%	43.2%	
Queen Anne's	38.0%	36.1%	37.4%	38.1%	40.3%	41.4%	41.3%	41.0%	46.5%	41.5%	
Baltimore City	37.4%	39.5%	37.6%	37.7%	39.9%	38.7%	40.0%	40.3%	41.2%	47.6%	

²⁸ Comp Range is defined by the GSE as: “Appraised Value minus minimum of the Adjusted Sale Price of Comparable (ASPC), divided by the minimum of ASPC minus the maximum of ASPC. Rounded to nearest .001.” <https://www.fhfa.gov/DataTools/Documents/UAD-Data-Files/The%20UAD%20Aggregate%20Statistics%20Data%20File%20Dictionary.pdf>

The mean comp adjustment percentage reflects the extent to which comparable properties selected in an appraisal need to be adjusted to be equivalent to the subject property.²⁹ A downward adjustment would occur, for example, where a comparable property is substantially larger or better constructed and, thus, its value needs to be reduced to be like the subject property. An upward adjustment might occur

where, for example, the subject property has an additional half-bath or is detached compared to a comparable property missing that bath or is attached. Generally, over time, the adjustment percentages for home purchase transactions have gone up slightly across the region. Baltimore's went from slightly negative to a positive adjustment in 2022; it does have the smallest adjustment of all the region's counties.

Appendix 1, Table 7: Mean Comp Adjustment Percentage for Home Purchase Transactions, 2013-2022

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Trend
Anne Arundel	-0.3%	-0.4%	-0.3%	-0.2%	-0.2%	0.0%	-0.2%	0.0%	0.3%	0.3%	
Baltimore	-0.7%	-0.5%	-0.5%	-0.4%	-0.4%	-0.3%	-0.2%	-0.1%	0.2%	0.2%	
Carroll	-0.6%	-0.8%	-0.5%	-0.6%	-0.4%	-0.2%	-0.1%	-0.1%	0.3%	0.3%	
Harford	-0.7%	-0.6%	-0.6%	-0.3%	-0.4%	-0.3%	-0.2%	0.0%	0.2%	0.4%	
Howard	-0.3%	-0.3%	-0.3%	-0.4%	-0.1%	-0.1%	-0.2%	0.2%	0.5%	0.5%	
Queen Anne's	0.0%	-0.5%	0.2%	-0.4%	-0.6%	0.3%	-0.3%	-0.1%	0.6%	0.7%	
Baltimore City	-0.5%	-0.5%	-0.5%	-0.4%	-0.1%	-0.2%	-0.2%	0.0%	0.0%	0.1%	

On the other hand, as it relates to mortgage refinance appraisals, Baltimore's percentage remains negative compared to the other counties. In other words, typically appraisers are reducing the

value of comps in Baltimore but adjusting them upward in the other counties across the region. The cause of this difference is not discernible from these data and is worthy of further inquiry.

Appendix 1, Table 8: Mean Comp Adjustment Percentage for Mortgage Refinance Transactions, 2013-2022

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Trend
Anne Arundel	0.0%	-0.2%	-0.2%	0.0%	-0.3%	-0.2%	0.2%	0.3%	0.4%	0.5%	
Baltimore	-0.4%	-0.4%	-0.3%	-0.5%	-0.5%	-0.6%	-0.3%	0.2%	0.2%	0.2%	
Carroll	0.0%	-0.1%	0.0%	0.1%	0.2%	-0.1%	0.1%	0.4%	0.9%	0.8%	
Harford	-0.4%	-0.5%	-0.4%	-0.3%	-0.3%	-0.4%	0.1%	0.4%	0.7%	0.5%	
Howard	-0.3%	-0.1%	-0.3%	-0.3%	-0.2%	-0.3%	0.0%	0.3%	0.6%	0.7%	
Queen Anne's	-0.2%	0.6%	-0.1%	0.2%	-0.3%	0.8%	0.2%	0.3%	0.9%	1.3%	
Baltimore City	-0.8%	-0.7%	-1.0%	-1.1%	-1.3%	-1.5%	-0.5%	-0.8%	-0.3%	-0.6%	

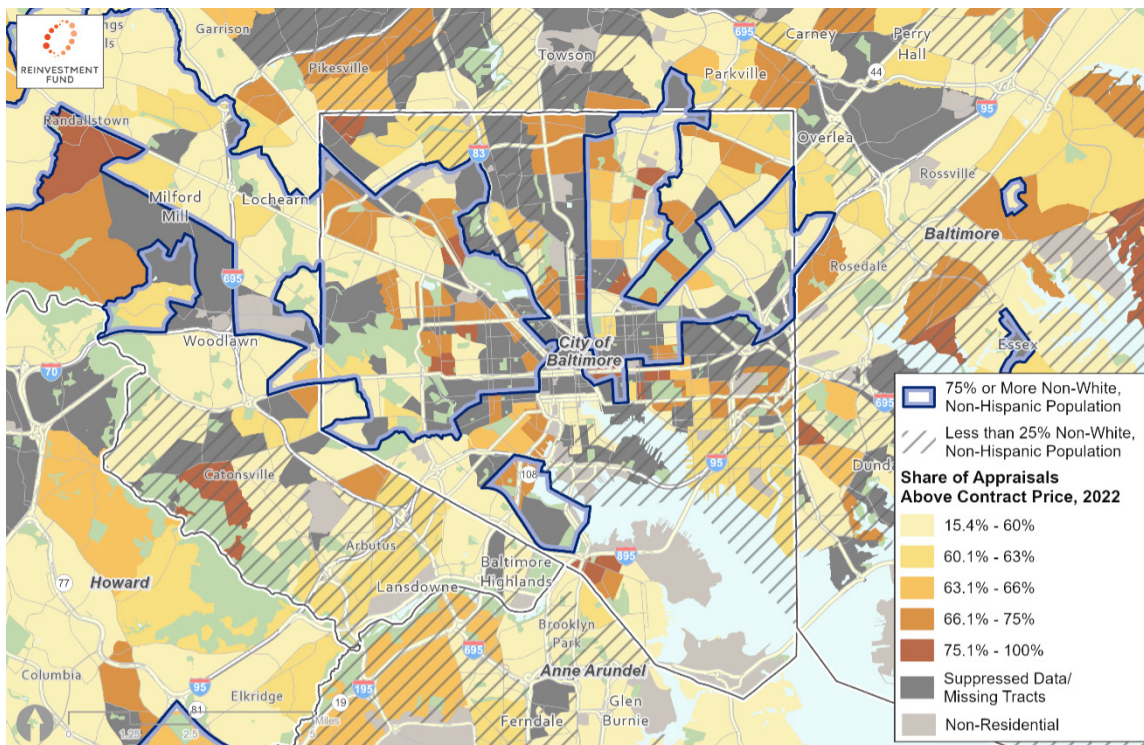
²⁹ Mean Comp Adjustment Percentage is defined as: "Comps Adjustment refers to a change in value of a comparable property to make it equivalent to the subject property. Mean Comps Adjustment Percentage is calculated as follows: Net adjustment divided by the Comparable Sales Price (averaged for all comparables related to each subject property). Rounded to nearest .001." <https://www.fhfa.gov/DataTools/Documents/UAD-Data-Files/The%20UAD%20Aggregate%20Statistics%20Data%20File%20Dictionary.pdf>

APPENDIX 2:

Maps of UAD for Neighborhoods in Baltimore and the Baltimore Region, 2022

Note: Areas on the following maps that are within the blue/grey boundary are at least 75% not-white, not-Hispanic (i.e., predominantly Black areas); areas under the grey hatching are at least 75% white, not-Hispanic (i.e., predominantly white areas).³⁰

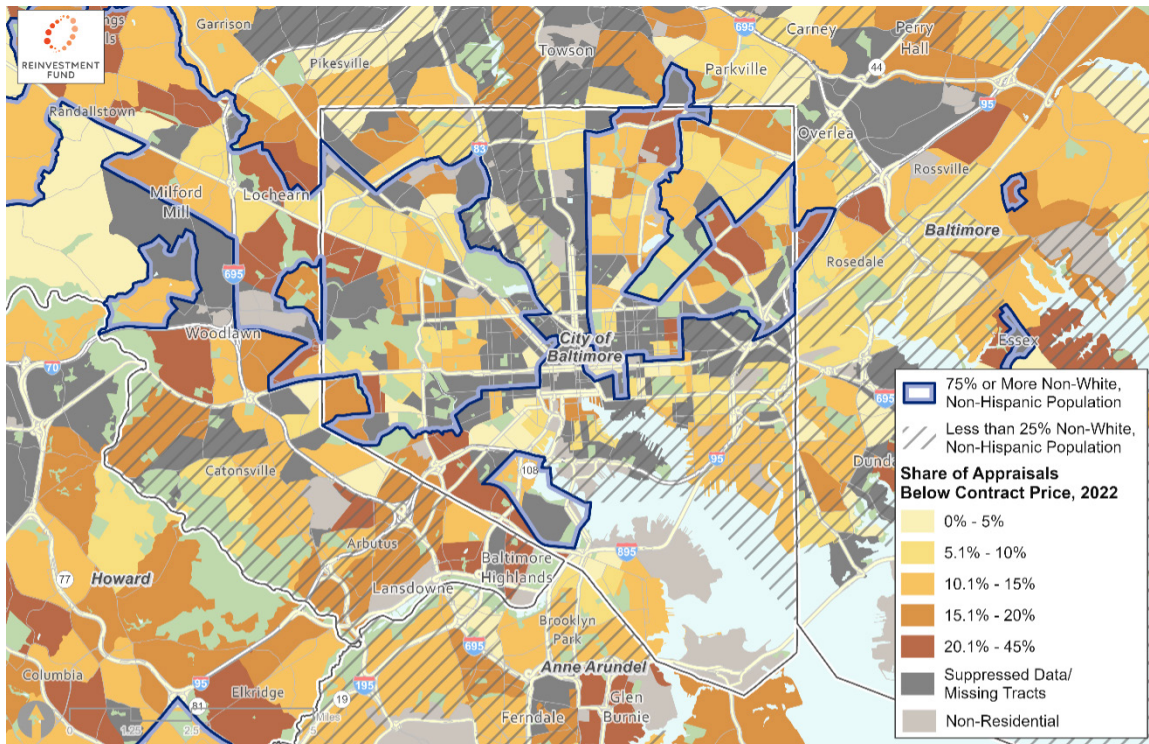
Appendix 2, Map 1: Percentage of Appraisals Above the Contract Sale Price in Baltimore, 2022



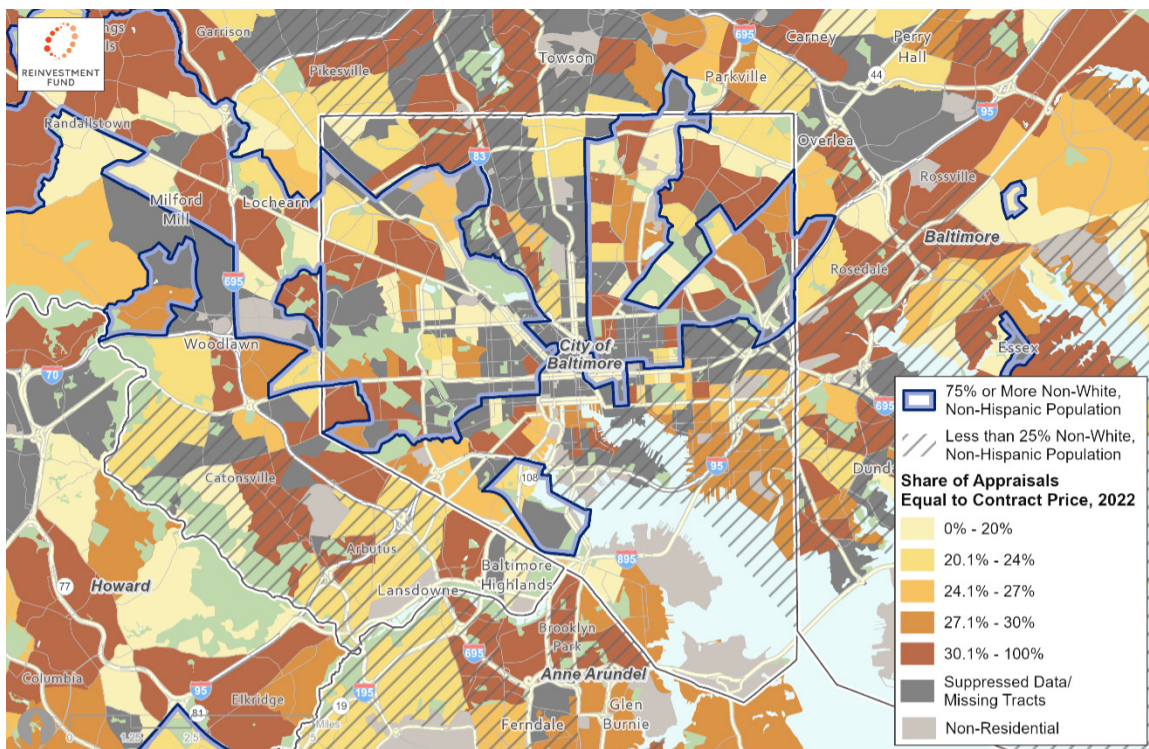
30 The number and percent of tracts in each category in the city and region as demarcated in the map are displayed in the table below. Note that in Baltimore City, 54% of census tracts are predominantly Black compared to 6% of tracts in the remainder of the region. Conversely, 15% of tracts in the Baltimore City are predominantly white, not Hispanic compared to 51% in the rest of the region.

	All Tracts	Less than 25% Non-white, Non-Hispanic Population (predominantly white)		75% or More Non-white, Non-Hispanic Population (predominantly Black)		Racially Mixed Areas	
		# Tracts	%	# Tracts	%	# Tracts	%
Baltimore City	197	30	15%	106	54%	61	31%
Rest of the Region	510	262	51%	33	6%	215	42%

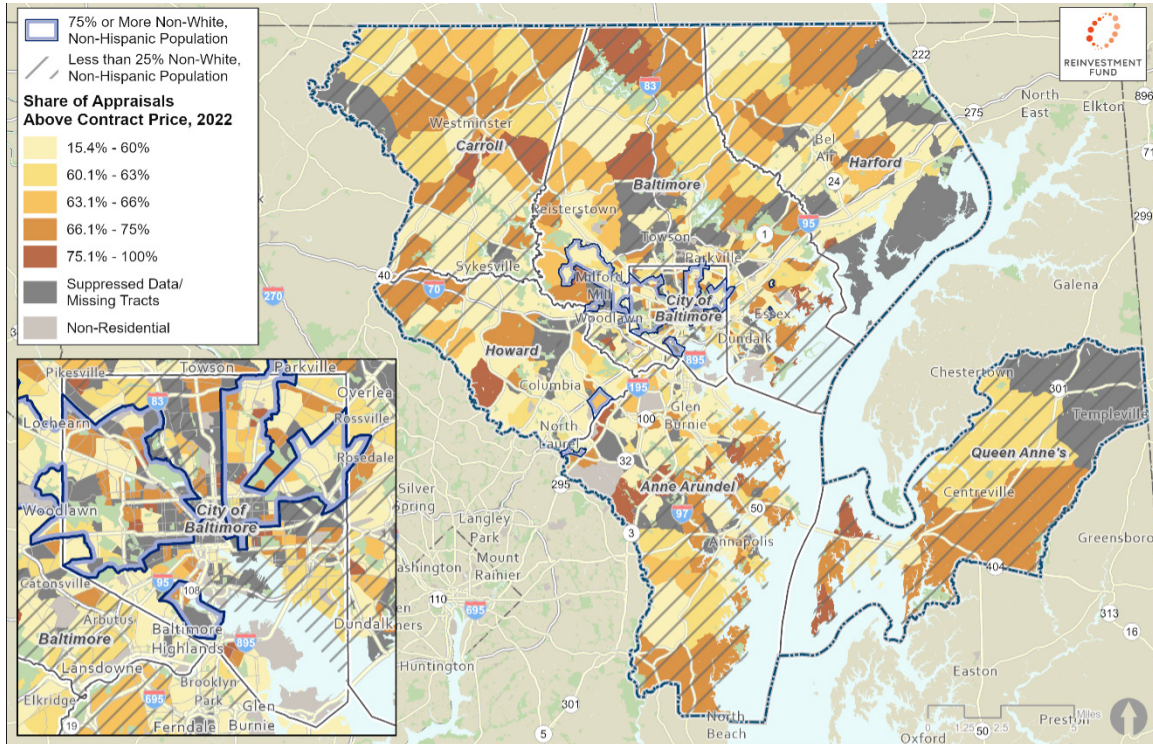
Appendix 2, Map 2: Percentage of Appraisals Below the Contract Sale Price in Baltimore, 2022



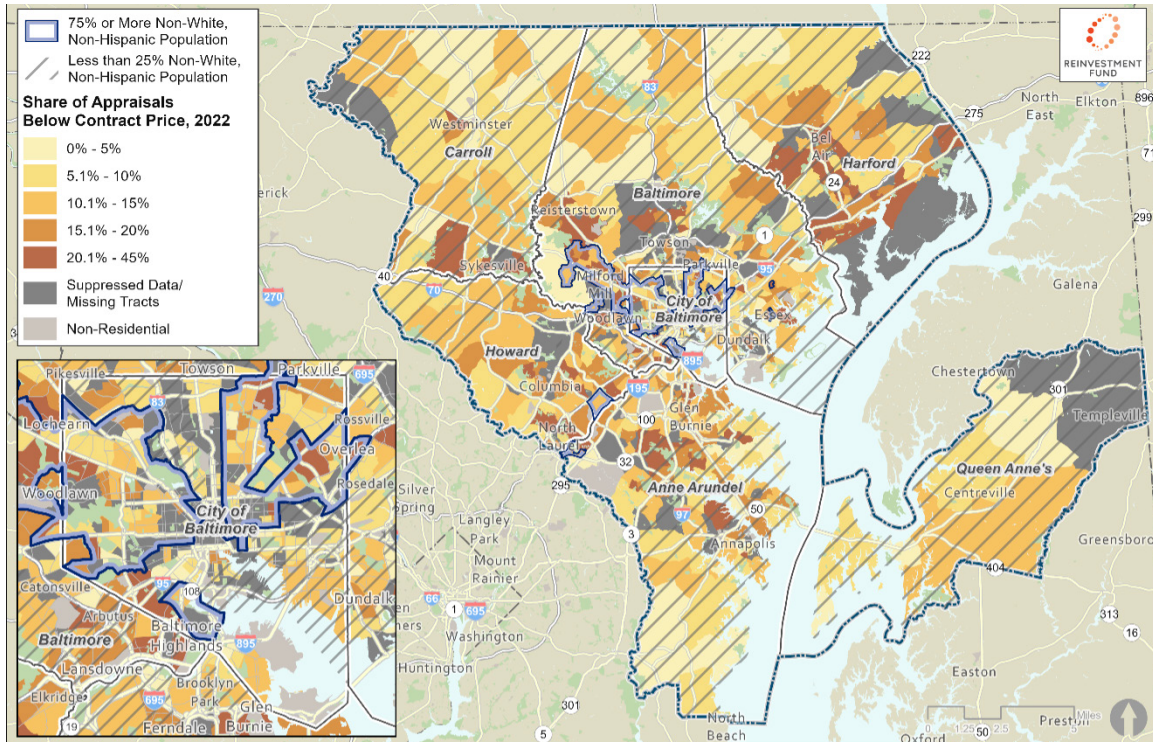
Appendix 2, Map 3: Percentage of Appraisals Equal to the Contract Sale Price in Baltimore, 2022



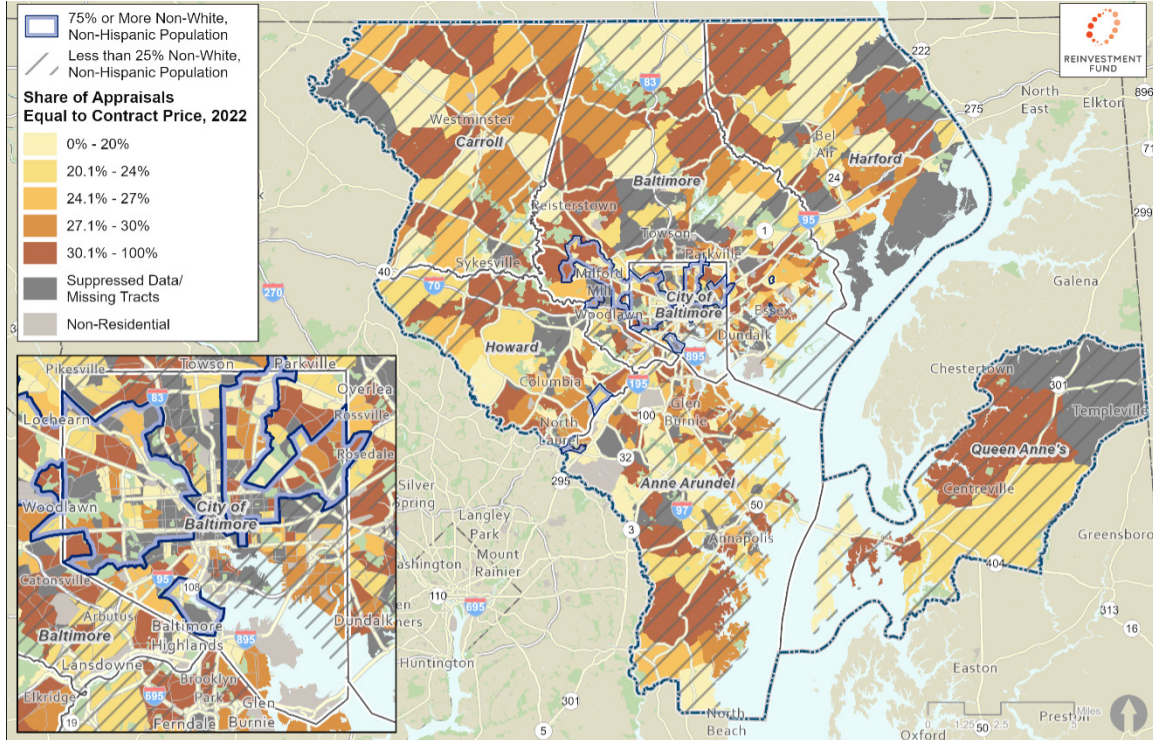
Appendix 2, Map 4: Percentage of Appraisals Above the Contract Sale Price in Baltimore Region, 2022



Appendix 2, Map 5: Percentage of Appraisals Below the Contract Sale Price in Baltimore Region, 2022



Appendix 2, Map 6: Percentage of Appraisals Equal to the Contract Sale Price in Baltimore Region, 2022



APPENDIX 3:

Data Suppression and Missing Data; Differential Patterns by Racial/Ethnic Composition of Neighborhoods

The UAD used in this analysis differentially represents the universe of home sale and refinance transactions in Baltimore. We present data on suppression not to suggest that there is anything nefarious in the UAD but to underscore the degree to which the database accurately and fully captures the totality of appraisal activity across the region.

Data suppression is a result of multiple issues. First, people and communities of color are, all else equal, more likely to use government-insured (particularly FHA) loans to access mortgage credit. Given that this vintage of the UAD data do not include government-insured loans at the relevant (census tract) level, that activity is missing altogether.³¹ Second, tracts may be missing from the UAD because there were no appraisals conducted (GSE- or government-related), which is different from a situation where there were too few GSE-related appraisals to summarize, and thus were suppressed from reporting. That could be because there were no sales, or no sales that required appraisals (e.g., investor-related sales that are oftentimes cash transactions).³² Third, there are tracts that are

overwhelmingly renter-occupied, in which case sales with appraisals just don't occur because there is not a for-sale market. For example, there is a small number of tracts in Baltimore that are less than 5% owner occupied or have fewer than 100 owner occupied properties.

Appendix 3, Tables 1 and 2 show how, for 2018 and 2022, the UAD is differentially covering areas based on census tract racial/ethnic composition. The grey areas on Appendix 2, Maps 1 through 6 also evidence the location of suppressed data/missing tracts.

Across all census tracts in 2018, the degree to which census tracts are entirely missing from the UAD is almost twice as great in Baltimore compared to the rest of the region (Appendix 3, Table 1). The disparity declined somewhat by 2022, but it is still the case that Baltimore tracts are missing at a substantially greater rate. Further, it appears that within Baltimore (and in the remainder of the region), the degree to which census tracts are missing from UAD is greater in areas that are racially mixed with a predominance of not-white, not-Hispanic residents. That is true both in 2018 and 2022.

³¹ We note that with each UAD release, the FHFA adjusts its procedures, which impacts the degree to which data are suppressed. See: <https://www.fhfa.gov/DataTools/Documents/UAD-Data-Files/UAD-Aggregate-Statistics-Data-File-Version-History-and-Suppression-Rates.pdf>

³² Redfin recently reported that in Q2, 2024, 16.7% of all home purchases were by investors. See: <https://www.redfin.com/news/investor-home-purchases-q2-2024/>

Appendix 3, Table 1: Percentage of Census Tracts Completely Missing from UAD Database, 2018 & 2022

	2018			2022		
	City of Baltimore	Rest of Region	Region (Total)	City of Baltimore	Rest of Region	Region (Total)
Predominantly not white not Hispanic	1.8%	4.3%	2.5%	1.8%	4.3%	2.5%
Mixed/Pred not white not Hispanic	9.8%	4.9%	6.5%	7.3%	4.9%	5.7%
Mixed/Pred white not Hispanic	3.6%	1.2%	1.6%	3.6%	1.9%	2.1%
Predominantly white not Hispanic	0.0%	0.5%	0.4%	0.0%	0.0%	0.0%
All Tracts	3.5%	1.8%	2.3%	3.0%	1.8%	2.1%

Data suppression (Appendix 3, Table 2), a result of the FHFA not reporting data because the number of appraisals does not meet the threshold reporting level, is similarly differential in Baltimore (compared to the rest of the region). In 2018, the greatest level of suppression in Baltimore (75.5%) is observed in the predominantly not-white, not-Hispanic areas; that is compared

to 29.4% in the predominantly white, not-Hispanic areas. The disparity improved by 2022 to 46.4% and 26.7%, respectively. Uniquely in 2022, there was a lot of suppression in the predominantly white, not-Hispanic areas of Baltimore. Compared to 2018, data suppression in 2022 was less related to racial/ethnic composition – both in the city and remainder of the region.

Appendix 3, Table 2: Degree of Data Suppression in UAD Database, 2018 & 2022

	2018			2022		
	City of Baltimore	Rest of Region	Region (Total)	City of Baltimore	Rest of Region	Region (Total)
Predominantly not white not Hispanic	75.5%	26.7%	61.3%	46.4%	26.7%	40.6%
Mixed/Pred not white not Hispanic	54.1%	35.9%	41.7%	39.5%	29.5%	32.8%
Mixed/Pred white not Hispanic	59.3%	22.6%	28.0%	48.1%	22.2%	25.9%
Predominantly white not Hispanic	29.4%	13.1%	14.3%	52.9%	19.8%	22.2%
All Tracts	64.9%	20.9%	33.0%	45.8%	22.7%	29.1%

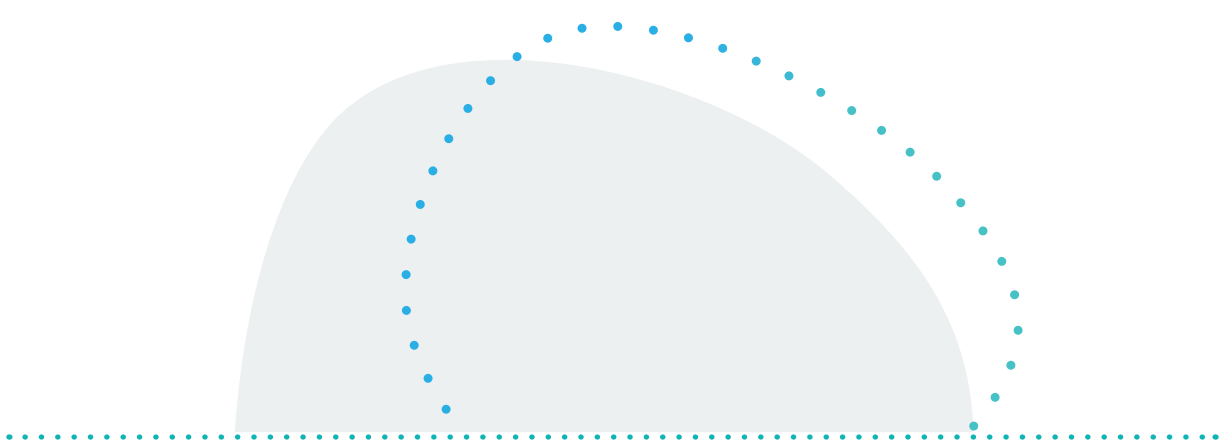
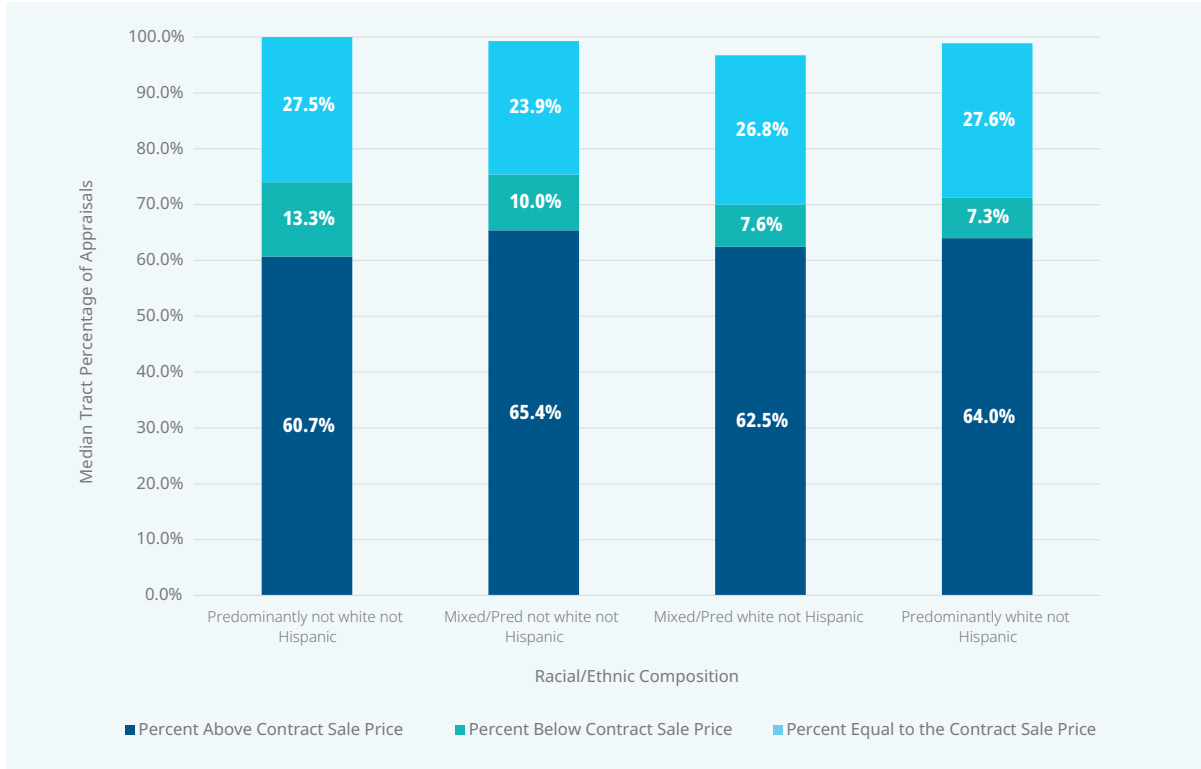
APPENDIX 4:

Appraisal Accuracy by Racial/Ethnic Composition of Neighborhoods, 2022

Appendix 4, Figure 1: Appraisal Accuracy by Neighborhood Racial/Ethnic Composition in the Suburban Baltimore Counties, 2022



Appendix 4, Figure 2: Appraisal Accuracy by Neighborhood Racial/Ethnic Composition in Baltimore, 2022



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