Outcompeted:

Challenges of FHA Buyers in Tight Housing Markets

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Executive Summary

Amidst a dire housing supply shortage, homebuyers have faced fierce competition to buy a home. Especially during the pandemic when interest rates reached historic lows, many buyers opted to overbid, waive sale contingencies, or offered cash to stand out in a crowded field. This tight housing market is particularly hard on first-time homebuyers and homebuyers of color, many of whom rely on government-insured Federal Housing Administration (FHA) mortgages.

This report shows that FHA homebuyers are often outcompeted in tight housing markets. Relying on interview, ethnographic, and quantitative data on homebuying in Massachusetts before and during the pandemic, we find:

- Buyers using FHA mortgages often face stigma when buying a home and cannot use many competitive strategies that are common to conventional and cash buyers.
- The competitiveness of FHA mortgages varies across times and places. The stigma associated with FHA is stronger when markets are highly competitive and in places where FHA is less common, including more affluent and white communities. In places where FHA mortgages are common, including lower-income communities and communities of color, sellers' agents are often more familiar and willing to work with FHA buyers.
- As first-time homebuyers and homebuyers of color disproportionately rely on FHA, the stigma of this mortgage product makes it even harder for them to buy a home.
- The uneven stigma of FHA mortgages across times and places may contribute to "sorting" buyers across housing markets and may aggravate socio-economic and racial inequalities.

FHA is an important mortgage product that broadens access to homeownership and has enabled tens of millions of Americans to buy their first home. This report offers key policy recommendations to ensure this product remains effective and fair in competitive markets:

1. States and municipalities should **pass "source of income" / source of financing anti-discrimination statutes** and enforce this Fair Housing law to protect tenants and homebuyers who face discrimination based on their mortgage product.
2. FHA should **critically review the inspection requirements for FHA appraisals** and modernize and simplify criteria where feasible.
3. Real estate associations can do more to **educate real estate agents on how to fairly communicate housing bids** to their sellers and how to successfully work with FHA buyers in all markets.
4. Congress and / or HUD should **increase funding for Fair Housing Centers** to investigate FHA homebuying trends and bring cases against lenders, brokers, or real estate agents that perpetuate source of financing discrimination.

Introduction

When the Federal Housing Administration (FHA) was first created in 1934, this public mortgage insurance program aimed to stimulate the US housing market and help put homeownership within reach of middle-class Americans.[1] But until Congress passed the *Fair Housing Act* in 1968, the FHA made risk assessments for mortgage lending based on race. In what became known as "redlining," it denied loans to Black communities and made lending decisions conditional on maintaining strict residential racial segregation.[2] This history of government-supported discrimination shapes racial wealth and homeownership gaps to this day.[3]

Today the Federal Housing Administration seeks to maintain broad access to affordable mortgage credit, notably for households who traditionally have been underserved in home buying.[4] FHA mortgages require low down payments of only 3.5 percent, allow for higher debt-to-income ratios, and accept lower credit scores than most conventional mortgages.[5] FHA mortgages also do not engage in risk-based pricing, such as based on credit history, unlike the GSEs or most other providers of mortgage credit.[6] These characteristics make them popular among first-time homebuyers, homebuyers of color, and households with lower incomes or weaker credit histories. Indeed, in 2022, 82.2 percent of all FHA home mortgages went to first-time homebuyers.[7] Nationwide in 2018 Black and Hispanic households were more than twice as likely as white households to use an FHA mortgage: 41 percent of Black households and 38 percent of Hispanic households used an FHA loan to buy their home, compared to 16 percent of white households.[8]

Housing markets have become extremely competitive in recent years as many buyers are competing for a limited housing supply.[9] Broader socio-economic conditions drive these tight markets, including historically low interest rates during the pandemic and demographic shifts as the large Millennial generation reached peak homebuying age.[10] We also face national housing supply shortages, as not enough housing has been built such as due to zoning restrictions and fierce homeowner NIMBY opposition to denser, affordable development.[11]

These economic conditions have not only driven up home prices but also changed the everyday experiences of consumers who are buying a home. To stand out in a crowded market, buyers have felt forced to overbid on homes or waive sale contingencies, such as the right to a pre-sale home inspection. Indeed, a 2021 National Association of Realtors survey found that buyers waived contingencies in *three out of four* home sales, with every fourth buyer waiving their right to a home inspection.[12] Buyers also increasingly compete against investors coming in with cash offers, who are especially active in more affordable and newer segments of the single-family housing market.[13] Research by the Harvard Joint Center for Housing Studies found that investors bought up one in four single-family homes in 2022, comprising a record-high share of buyers.[14] These competitive conditions have complicated home buying for first-time homebuyers and homebuyers of color who disproportionately rely on government-insured mortgages, which includes both FHA and VA mortgages.[15] These mortgage programs restrict the ability to waive contingencies or offer cash, limiting buyers' ability to compete in a crowded market.

In this report, we analyzed housing markets in Massachusetts before and during the pandemic, to answer three research questions:

- What challenges do FHA buyers face in highly competitive housing markets?
- When FHA buyers are outcompeted, how does this shape inequalities in who is able to buy a home and where?
- What can we learn from this case to improve FHA mortgages and their uptake in tight housing markets?

Data for this report include 20 in-depth interviews with FHA buyers, real estate agents, and lenders active in the greater Brockton area in Massachusetts. In addition, co-author Cornelissen conducted ethnographic observations in the city of Brockton from 2021 until 2023, including while she moved to and lived there for one year. This city south of Boston had become the top city for Black homebuyers in the Commonwealth and was among the most popular for buyers using FHA mortgages. Finally, we analyzed homebuying trends using Home Mortgage Disclosure Act (HMDA) data for Massachusetts 2018-2021, as well as American Community Survey data and Zillow data on overbidding trends by tract.

Drawing on qualitative data, the first half of the report shows that some real estate agents associated stigma and a higher risk of closing delays with FHA mortgages. Some also expressed confusion about the exact requirements of FHA closings, notably whether the inspection requirement could be waived and what FHA-approved appraisers looked for during their FHA inspection: this misinformation contributed to FHA mortgages being seen as less competitive than conventional or cash offers.

We also found that this stigma varied across places and times. Stigma was more prevalent when markets were extremely competitive. We also found evidence of stronger stigma in higher-income and predominantly white communities near Boston, where most real estate agents had little experience working with FHA buyers. We found a very different relationship to FHA mortgages in the Black-majority, moderate-income city of Brockton, where one in every fourth home was sold with an FHA loan. As many real estate agents anticipated *a likely FHA sale* in this community, they educated sellers in advance about FHA mortgages and at times helped them prepare the property for a successful FHA closing.

The second half of this report builds on this qualitative evidence to look at quantitative trends in home buying in Massachusetts before and during the pandemic. Analyzing 2018-2021 HMDA data, we found that FHA mortgages were highly concentrated in a small number of Massachusetts communities. Many of them included post-industrial “Gateway Cities,” such as Brockton, which are historically lower-income cities that today house high shares of immigrant, Hispanic, and Black residents.[16] By contrast, in more than a dozen cities and towns across

Massachusetts, especially immediately west of Boston, *less than 1% of homes* were sold with an FHA mortgage. We found that higher shares of FHA mortgages in communities were associated with greater concentrations of Black and Hispanic buyers, even when controlling for local income inequalities. We also found a positive association between higher local shares of FHA mortgages and overbidding trends during the pandemic. We argue that this association indicates that FHA buyers disproportionally relied on overbidding to stand out from competitive bidders. Finally, by calculating a so-called "dissimilarity index," we found that FHA mortgages only became *more segregated* in Massachusetts from 2018 to 2021. This finding suggests that heightened competition further geographically restricted FHA buyers.

Overall, our findings uncover a concerning trend of source of income or "source of financing" discrimination against those buying with FHA mortgages. Source of income discrimination has been widely documented in the rental housing market, as many landlords refuse to accept tenants who use Section 8 vouchers.[17] Research has found that this discrimination makes it difficult for Section 8 tenants to find housing, and that they are often limited to living in lower-opportunity neighborhoods.[18] We argue that FHA buyers face similar Fair Housing violations when their mortgage product is deemed inferior to cash or conventional mortgages. Discrimination against FHA buyers can contribute to sorting homebuyers across housing markets: a process that disproportionally impacts first-time homebuyers and homebuyers of color.

We conclude by offering policy recommendations. We argue that ensuring the competitiveness of government-insured mortgages such as FHA, including in tight housing markets, is a Fair Housing issue. The value of providing broad access to mortgage credit is diminished when it does not result in equivalent fair access to home buying. We recommend:

1. States and municipalities should pass "source-of-income" / source of financing anti-discrimination statutes and enforce them to also prevent homebuyer discrimination.
2. The Federal Housing Administration should review and consider simplifying the Minimum Property Requirements/Standards that constitute the FHA inspection.
3. Real estate associations can do more to educate agents on the fair housing implications of homebuyer discrimination and how to successfully work with FHA and other government-insured mortgage products.
4. Congress and / or HUD should increase funding for Fair Housing Centers to investigate FHA homebuying trends and bring cases against lenders, brokers, or real estate agents that perpetuate source of financing discrimination.

Background: FHA Historically and Today

FHA has Played a Shifting Role in National Lending Markets

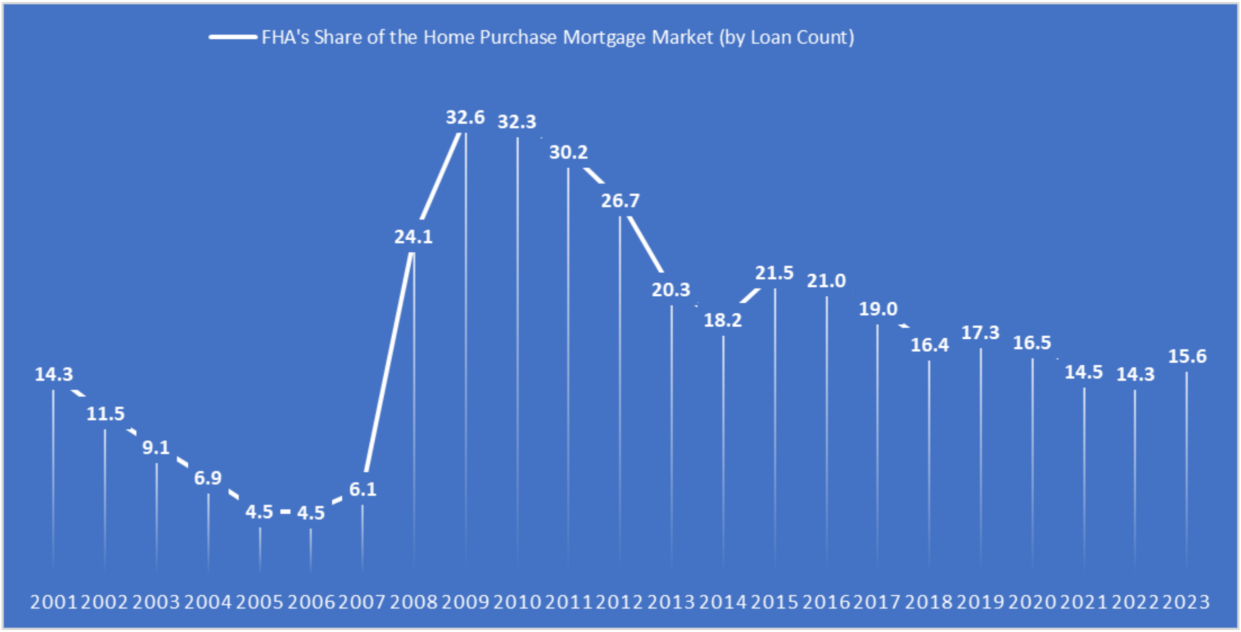
Since its founding in 1934, the Federal Housing Administration has serviced well over 44 million homeowners and helped lift the national homeownership rate from around 44 percent to 65.4 percent.[19] The FHA helped standardize the thirty-year, fully amortizing mortgage, with low down payments under ten percent, and systematized building standards.[20] Despite these successes, the FHA also aggravated racial inequalities throughout its first thirty years, when 98 percent of FHA loans went to white families.[21] In what became known as "redlining," the FHA used Home Owners Loan Corporation (HOLC) underwriting maps to evaluate risk.[22] The mere presence of Black residents was considered a high risk and a reason to deny mortgages.

These discriminatory risk assessments became self-fulfilling prophecies. As Black residents were denied mortgages, their homes and neighborhoods suffered from disinvestments, deferred maintenance, and declining property values. FHA's underwriting standards also promoted strict racial segregation. While the 1968 Fair Housing Act outlawed housing discrimination, the intergenerational legacies of this history continue to shape contemporary racial wealth and homeownership gaps.[23]

The Federal Housing Administration today is committed to help redress these legacies of racial discrimination in housing.[24] Housed within the U.S. Department of Housing and Urban Development (HUD), it seeks to fulfill two main mandates.[25] First, it seeks to stabilize mortgage markets and maintain broad credit availability, even during uncertain economic times when other lenders are less willing to take on risk. Second, the FHA seeks to help maintain affordable and sustainable access to homeownership for historically underserved borrowers.

FHA's share of the national mortgage market has fluctuated counter-cyclically over the years **(Figure 1)**.[26] For instance, after the 2007 subprime mortgage bust, conventional lending became scarce as many lenders were risk-averse. During this period, FHA lending ensured that mortgage credit remained available and helped stabilize the distressed mortgage market. Indeed, FHA share surged from 6.1 percent in 2007 to a high of 32.6 percent of all home purchase loans in 2009. By contrast, during economic upturns, conventional lenders become more lenient in underwriting, as they perceive lower risks and qualify more borrowers for conventional mortgages.[27] In 2021, a time of historically low interest rates, a favorable lending climate, and widespread market competition, only 14.2 percent of home purchase loans were insured by FHA: the lowest market share since 2008.

Figure 1: FHA's Share of the Mortgage Market has Fluctuated Countercyclically



Note: National shares based on loan counts of single-family home purchase mortgages
Source: Data from FHA Single Family Market Share 2023Q4[28]

At the same time, the recent drop in FHA mortgage market share may also indicate that the lower-income borrowers it seeks to serve are outcompeted during periods of high market competition. In tight housing markets, FHA buyers may lose out against conventional and cash buyers when bidding on homes. Tight market conditions may jeopardize FHA's goal of maintaining broad access to homebuying for historically underserved borrowers, including many homebuyers of color. To better understand that risk, the next section looks closer at FHA's loan product features, as well as how an FHA homebuying and closing process may diverge from a conventional mortgage or cash sale.

FHA Mortgages Differ from Conventional Mortgages

FHA mortgages vary along some key indicators from conventional mortgages, which generally conform to loan standards set by Fannie Mae and Freddie Mac.[29] Differences between FHA loans and conventional loans can be approached from two perspectives: one, from the perspective of loan characteristics, and two, from the perspective of the homebuying and closing process.

First, FHA loan characteristics differ from most conventional loans, as summarized in **Figure 2**.

Figure 2: FHA Loans Differ from Most Conventional Loans

	FHA Loans	Conventional Loans
Down payment	Lower down payment Starting at 3.5 percent	Higher down payment Usually at least 3 percent[30]
Credit Score	Lower credit score requirements: as low as 580, or 500 (with 10% down)	Higher credit score requirements: the GSEs generally require 620 minimum
Pricing	No risk-based pricing	Risk-based pricing Loan-level price adjustments (LLPA), based on credit score, debt-to-income ratio, and property type[31]
Loan Maximums	Maximum mortgage amounts: in 2023, ranging from $472,030 in lower-cost areas to $1,089,300 in higher-cost areas[32]	Conforming loan limits for GSEs in higher-cost areas (but no limit for non-conforming, larger jumbo loans). Lower than GSE in lower-cost areas[33]
Mortgage Insurance	Mortgage Insurance Premium (MIP) for all FHA loans, which adds to the upfront and monthly costs of loans. MIP is required for the life of the mortgage[34]	Private Mortgage Insurance (PMI) in case of a down payment of less than 20%, which adds to the monthly costs of loans. Removed after the borrower has reached 20% equity
Loss Mitigation	Strong loss mitigation programs through FHA: helping borrowers in default[35]	Loss mitigation varies by lender: servicing lender shifts when servicing rights are sold. GSE lenders have more standardized loss mitigation.

Source: Consumer Federation of America 2024

FHA accepts lower credit scores, higher debt-to-income ratios, and lower down payments than most conventional mortgages. It also does not engage in risk-based pricing, where originators are required to add additional costs based on loan characteristics associated with higher mortgage default risks: such as debt-to-income ratios (DTI), credit scores, and property type.[36]

The limits on risk-based pricing often makes FHA the most affordable option for borrowers with lower credit scores and lower incomes.

A key difference between FHA and conventional loans is that FHA loans require an ongoing mortgage insurance premium (MIP) for the life of the mortgage in addition to an upfront MIP. This premium increases monthly payments for borrowers.[37] By contrast, conventional borrowers can waive private market insurance (PMI) if they make a down payment over twenty percent, or once they reach twenty percent equity. Over the long term, this makes conventional loans often more affordable than FHA loans, for those who can qualify.[38]

While FHA has a reputation as the “lender of the last resort,” FHA mortgages are not only used by borrowers who are deemed the riskiest by underwriting standards and who may have no other options. FHA serves a much broader pool of borrowers.[39] For some borrowers who could qualify for conventional loans, FHA remains the most affordable option, as risk-based pricing can make conventional loans more expensive.[40] Some advocates have raised concerns that Black and Hispanic applicants may be pushed into FHA mortgages – even if they could qualify for a more affordable, conventional product – due to lending discrimination and racial inequalities in loan denial rates.[41] For all borrowers, it is important that they shop for mortgages and talk to different types of lenders to find the best, most affordable product for them.[42]

FHA and Differences in the Homebuying and Closing Process

The homebuying and closing process also differs for FHA borrowers compared to those who buy homes with conventional loans or cash, as summarized in **Figure 3.** These differences particularly matter in competitive housing markets, when many buyers may overbid, waive contingencies, or pay in cash to stand out in a crowded market.

Figure 3: Characteristics of the Homebuying and Closing Process

	FHA Bid	Conventional Bid	Cash Offer
Down payment	A down payment of 3.5 percent	Down payment starts at 3 percent but commonly 20 percent	100 percent paid upfront
Earnest Money Deposit	Usually 1-2 percent earnest money deposit (amount not proscribed by FHA)	Any amount of earnest money deposit (amount not proscribed)	NA
Appraisal	FHA appraisal required	Appraisal contingency can be waived	NA
Inspection	FHA inspection is part of FHA appraisal Inspection criteria (Minimum Property Standards/Requirements) need to be addressed before the sale. Regular inspection can be waived	Inspection can be waived. Inspection results can be negotiated between buyer and seller	NA (generally waived)
Financing	Financing contingency, waivable in some cases	Can be waived	NA
Average closing timeline	46 days (Jan 2024)[43]	47 days (Jan 2024)[44]	7-14 days

Source: Consumer Federation of America 2024

Buyers using FHA loans cannot engage in many common competitive strategies. FHA buyers come in with low down payments and generally offer low earnest money deposits, which is an upfront "good faith" amount that buyers lose if they change their mind for reasons not covered in the contingencies. Their ability to overbid is also limited by a home appraisal that needs to cover the loan. Finally, the FHA home appraisal must verify the property meets certain basic Minimum Property Requirements and Standards, which is an element of inspection that cannot be waived for an FHA closing. While there is much misunderstanding around this issue, FHA buyers *can* waive the right to a general inspection before the sale like conventional buyers.

The National Association of Realtors reported that all these strategies became extremely common during the pandemic. Their 2021 survey found that contingencies were waived in three out of four home sales, with as most popular concession being the appraisal contingency (28 percent), followed by the inspection contingency (25 percent).[45]

While it is often believed that FHA loans take longer to close than conventional loans, we have found no evidence to this effect. Independent mortgage banks (IMBs), which are non-depository institutions that specialize in originating mortgages exclusively, originate most FHA loans today.[46] As they rely on automated underwriting systems and other technology, these institutions have among the fastest closing times. According to data published by ICE Mortgage Technology, in January 2024 conventional purchase loans took on average 47 days to close, compared to 46 days for FHA purchase loans.

Finally, FHA buyers are competing against cash buyers in many housing markets across the nation. Redfin reported that 31 percent of all home purchases in December 2022 were made in cash.[47] Some higher-income homebuyers have relied on buying cash as a strategy to stand out, though these buyers generally compete in different housing markets than FHA buyers.[48] By contrast, institutional investors buying single-family homes pose a greater potential threat to FHA buyers. Research has found that institutional investors are most active in moderate-income single-family housing markets, particularly in cities in the southwest such as metro Atlanta and Phoenix.[49] In these places, investors with cash are competing against lower-to-moderate-income first-time homebuyers.

Data and Methods

This report analyzes the challenges of FHA homebuyers in competitive housing markets. Following a case study logic, we zoom in on homebuyers in Massachusetts during the pre-pandemic years of 2018-2019 and the pandemic period of 2020-2021.

Massachusetts includes some of the nation's most expensive and competitive housing markets, especially in and around Boston. For example, the average single-family home in the city of Newton, just west of Boston, was valued at $1.29 million in January 2022: this was above FHA's limits on the maximum mortgage size it underwrites.[50] At the same time, market conditions are less tight in central and western Massachusetts and its post-industrial Gateway cities, such as Brockton, Springfield, and New Bedford.[51] Massachusetts also houses a growing share of households of color, including many Black and Hispanic immigrants who are buying homes for the first time.[52]

The COVID-19 pandemic from March 2020 onwards, represented a period of sharply increased competition in local housing markets, fueled by historically low interest rates. Communities nationwide saw a tightening of housing markets. There is evidence that FHA buyers across the country faced new challenges to outbid competitors and buy a home.[53] However, looking closely at Massachusetts helps us better understand how and why these homebuying challenges emerged and how they varied locally. The research for this report proceeded in two stages.

First, we gathered information about the qualitative experiences of FHA buyers during tight housing markets. We conducted 20 in-depth interviews with homebuyers and housing brokers, who included realtors, lenders, and inspectors, active in and around the city of Brockton. This city south of Boston emerged in recent years as a key destination for first-time homebuyers, many of them Black immigrants.[54] Brockton is also one of 11 mid-sized post-industrial cities in Massachusetts that were designated as "Gateway Cities:" places that cope with social and economic challenges, after transitioning away from manufacturing.[55]

Second, we analyzed Home Mortgage Disclosure Act (HMDA) data for 2018-2021 for Massachusetts, to better understand how the challenges faced by FHA buyers shaped broader trends in homebuying. Since 1975 HMDA has mandated that all financial institutions, whose total assets exceed a minimum threshold, publicly disclose data about mortgage loan applications, denials, and approvals.[56] This data has helped the public track potential evidence of racial discrimination in lending and hold lenders accountable to where and to whom they lend. While this public dataset misses important variables such as credit scores, HMDA remains the most comprehensive public database on mortgage originations.[57] We supplemented our HMDA data with tract-level information from the American Community Survey and overbidding data from Zillow. For technical details, see **the Appendix.**

Qualitative Findings: FHA Stigma is Persistent but Varies by Place

Our qualitative research focused on real estate agents and homebuyers active around the city of Brockton. This post-industrial city south of Boston had long missed out on the region's prosperity. Once the center of a thriving shoe manufacturing industry, today its downtown was scattered with overgrown parking lots, empty storefronts, and light-industrial sites. Just outside of the city's hollowed-out center, one finds endless 1970s-style subdivisions with small ranch homes.[58]

Historically Brockton had been a white working-class city, a place with immigrant ethnic enclaves ranging from Polish and Latvian to a Swedish community. Over the last few decades, Brockton has attracted newer generations of immigrants. Most of Brockton's newest residents were Black immigrants from places such as Cape Verde and Haiti. While many rented in Brockton's downtown housing stock of three-family homes ("triple-deckers") and apartment buildings, others bought their first home in the city.[59]

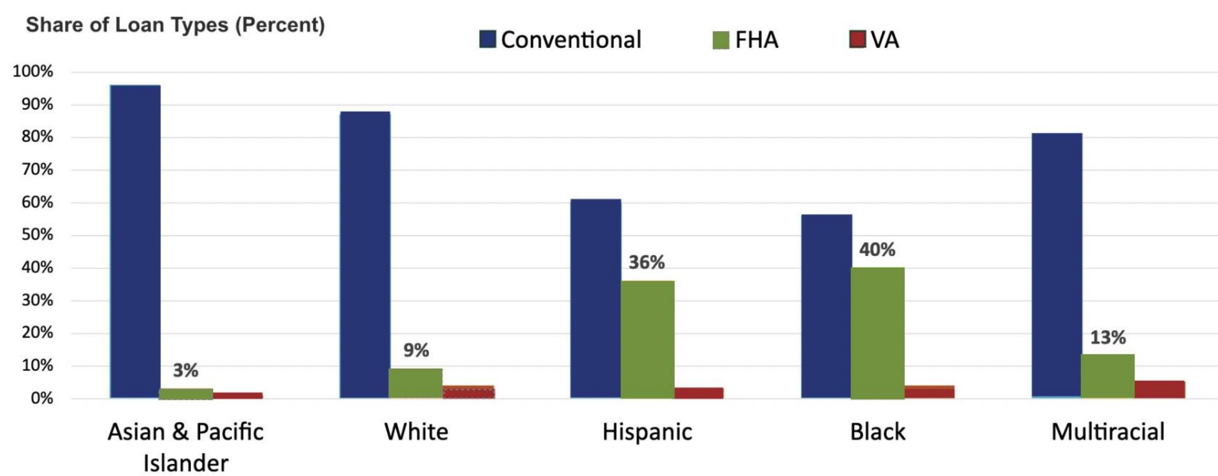
Brockton became the top destination for Black homebuyers in Massachusetts, surpassing Boston. In 2017, *twice* as many Black households bought houses in Brockton as in Boston – a city seven times its size. That year, one in five mortgages extended to Black households across

Massachusetts were in Brockton, even as this city only accounted for 1.7% of State-wide loans.[60] In 2019, Brockton became the first Black-majority city in New England.[61]

FHA Mortgages Have Helped Facilitate Black and Hispanic Homeownership

We found that homebuyers of color in Massachusetts disproportionally relied on FHA mortgages to buy a home, mirroring national trends. **Figure 4** shows that between 2018 and 2021, 40 percent of Black buyers and 36 percent of Hispanic buyers used an FHA mortgage, compared to 9 percent of white homebuyers in Massachusetts.

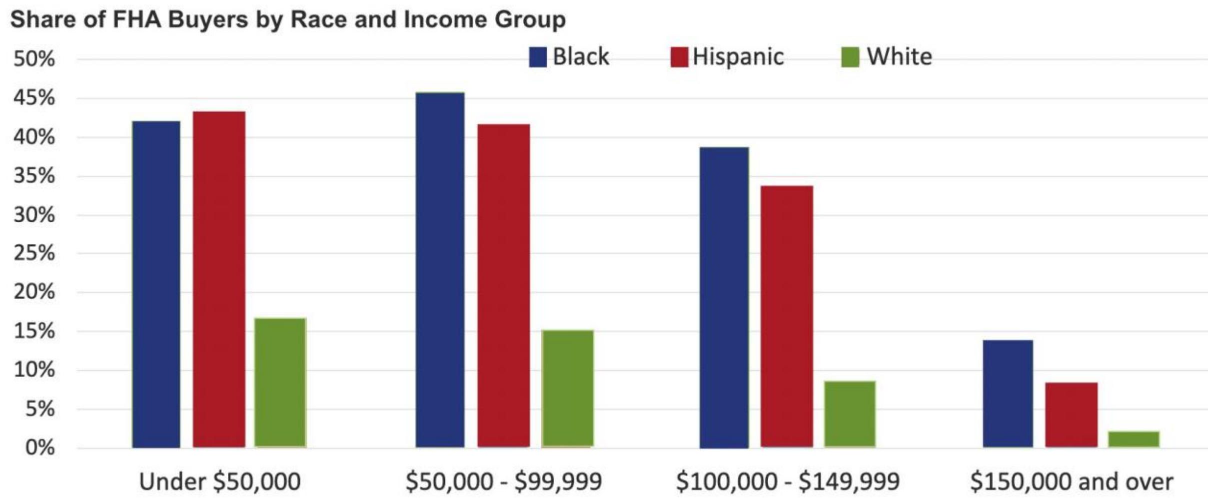
Figure 4: Black and Hispanic Buyers Disproportionally Buy Homes with FHA Loans in Massachusetts



Note: Includes 1-4 unit home purchases.
Source: Analysis of HMDA data 2018-2021

The outsized reliance of Black and Hispanic homebuyers on FHA cannot be explained by income inequalities alone. Compared to white homebuyers, we found that Black and Hispanic home buyers were more likely to rely on FHA across *all income levels* as shown in **Figure 5**. Among those making over $150,000 a year, 14 percent of Black and 8 percent of Hispanic homebuyers relied on FHA, compared to only 2 percent of white homebuyers in this income group.

Figure 5: Black and Hispanic Buyers Are More Likely to Use FHA, Even at High Income Levels



Note: Includes 1-4 unit home purchases.
Source: Analysis of HMDA data 2018-2021

Persistent racial differences in who relies on FHA across income levels can be partly explained by inequalities in credit scores and the racial wealth gap. Researchers have also raised concerns about potential discrimination against mortgage applicants, with Black and Hispanic applicants being more likely to be approved for a FHA product, even if they could have qualified for a more affordable alternative.[62]

At the same time, FHA remains an essential tool to help facilitate Black and Hispanic families buy their first home. FHA mortgages help reduce barriers that many first-time homebuyers face. For example, by only requiring a 3.5 percent down payment, FHA mortgages help alleviate the financial barrier of saving enough for a down payment and closing costs. FHA mortgages are also more accessible for homeowners who have weaker credit histories.[63] Being blocked out from conventional options, FHA is often the *only* option for this group of homebuyers.

Struggling to Buy an American Dream with FHA Mortgages

However, we found that in the tight pandemic housing markets of metro Boston, FHA borrowers often lost out during competitive bidding. Bre-Anna, a Cape Verdean real estate agent, said: "I've seen a lot of people get turned down, believe it or not because they have an FHA loan and somebody will take a conventional loan over it." And Suzanna, a white real-estate agent with an office based in a South Shore town noted: "There's a lot of times where you get five offers, four

FHA and one is conventional. Even if it's a little lower, *the seller will take the conventional*." She expressed a common sentiment in greater Boston that FHA buyers may lose out in competitive bidding even if they put in the highest bid.

Housing markets are deeply cyclical, often switching between buyers' and sellers' markets. The relative competitiveness of FHA buyers seems to be closely linked to these cycles. When we interviewed Suzanna in the summer of 2022, for example, she noted that FHA buyers' struggles were a recent trend:

> "Because sellers have so many offers, they can be *selective*. A few years ago, a seller didn't care whatever the offer was. They didn't even pay attention to the financing, but now they can be picky."

During the pandemic, amidst historically low interest rates, housing markets became extremely competitive, as a growing pool of buyers competed for a limited supply. Almost all home sellers could pick from multiple bids, often within days of putting their home on the market. Having to compete to buy a home, FHA buyers often lost out.

Real estate agents offered several reasons why FHA offers may be perceived as less competitive. Based on our interview data, we observed two common explanations:

1. *Home sellers and their real estate agents expressed misgivings about the mandatory "FHA inspection" as part of the appraisal.*
2. *Real estate agents perceived stigma about FHA mortgages and their buyers.*

We discuss both perceptions in more depth. First, the role of misgivings and misperceptions around the FHA inspection. Black real estate agent Pamela, who had been in real estate for thirty years, said that the mandatory FHA inspection had undermined FHA's competitiveness in multiple bidding situations:

> "FHA? A lot of people are using FHA now, but a lot of sellers don't like to take FHA offers. Mainly because when the inspection is done, if something comes up, more than likely the *seller will have to do that repair* in order for the buyer to get financing."

When weighing different offers, sellers may fear that disrepair issues come up during a mandatory FHA inspection. This is particularly true given the older housing stock in Massachusetts where the median owner-occupied unit was built in 1965.[64] Especially in more affordable markets where most FHA buyers buy, homes are likely to have deferred maintenance or aging issues.[65]

Nonetheless, this fear of home sellers and this guidance by their real estate agents may be misplaced. It is often misunderstood that FHA buyers can *waive the home inspection*. What is known as the "FHA inspection" is a limited evaluation to ensure the property meets basic health and safety standards, done by a certified FHA appraiser. Not only is this FHA inspection limited to a narrow checklist, but sellers are also not financially liable to make all repairs. Who pays for repairs needs to be resolved between buyers and sellers. Especially in tight markets, where sellers can dip back into a pool of bids, it is likely that most buyers will compromise on concessions. Nevertheless, offers associated with conventional loans do not require the property to adhere to these basic standards.

Second, the real estate agents we interviewed highlighted a broader stigma of FHA mortgages. For example, Cape Verdean-American real estate agent Charles, who had worked in the Brockton area since 1981, said:

> "Some agents, I mean some of the sellers don't understand [FHA]. They look at it as negative. But they're looking at it completely the wrong way. They are looking at it like it's a *government-backed program*."

By calling FHA a government-backed program, Charles invoked the broader stigma associated with people who receive government support or "welfare." The government-backed program here becomes a codeword for lower-income or precarious homebuyers. Researchers have previously documented how tenants who use Section 8 vouchers face discrimination. Few landlords are willing to rent to voucher holders, which severely limits their rental options and often restricts them to lower-income, low-opportunity neighborhoods.[66] This exclusion based on financing is also called *source of income* discrimination.[67] Our qualitative findings indicate a similar pattern in homebuying, as FHA buyers lost out in competitive bids based on the perceived quality of their mortgage financing.

When the researcher sold her starter home in Brockton at the end of this study, she told her real estate agent that she wanted to sell to an FHA buyer.[68] Even so, when the real estate agent presented the 13 home bids in an Excel sheet, the agent habitually marked "FHA" and "VA" bids in red to distinguish them from conventional offers. Her marking of different bids invokes the historical redlining in mortgage markets that have long undermined Black homeownership. This example also demonstrates how real estate agents play an instrumental role in educating sellers and directing them toward what they see as the best bids.

FHA Stigma Varied Across Housing Markets

The stigma of FHA varied across local markets, mediated by local norms on competitive housing bids and by local real estate agents' familiarity with FHA. When we asked whether he had experienced any challenges getting offers accepted for his FHA clients, real estate agent Jose said it depended on the place. Jose was Spanish of origin and had been an auto mechanic before he pursued his real estate license over a decade ago:

> "When you're dealing in Brockton, Boston, Randolph, it's normal for the buyer to use FHA. It's when you go into the other places that *don't*, they don't see that too often. *That's* where you're having trouble."

He had run into trouble advocating for his FHA buyers, when he dealt with sellers' agents used to working in affluent cities like Newton: "Newton's norm is not Randolph, Brockton's norm. In a city like Newton, Wellesley, whatever, buyers are putting 20, 25 percent down." Both Newton and Wellesley were majority-white, affluent communities west of Boston, while Randolph was a town south of Boston popular among Black homebuyers.

In all cases, real estate agents brokered the access of FHA buyers to housing markets: advising sellers on what would be the best bid for them to accept. However, the financial interests of real estate agents and home sellers do not always align. While agents get slightly higher commissions by getting the highest sale price, ultimately agents make the most money based on *volume*. Given that they can maximize their income by doing many transactions quickly, they may be motivated to encourage sellers to take what they see as the "lowest-risk," fastest market turn-around. [69]

By contrast, in places where FHA transactions were common, real estate agents anticipated and accommodated FHA bids. Several agents indicated that they tried to get ahead on any potential issues that could emerge during the FHA inspection. Black real estate agent Pamela said:

> "There are some challenges with FHA, but I tend to negotiate and work with FHA clients very well, because I'm a certified home inspector myself. And I can say to the client: 'If you're doing FHA, *this* is going to be a challenge. This chipped paint is going to be a challenge. These leaky pipes are going to be a challenge.' *I'll try to get ahead of it, before getting to that point if they put an offer in."*

In a city like Brockton, where every fourth home was sold with FHA, real estate agents displayed a high level of familiarity with FHA mortgage products. Even in multiple bidding situations, sellers in Brockton may only have a pick between FHA and VA offers. By educating sellers on FHA and where needed, advising the seller to do small repairs to make the house "FHA eligible," they helped home sellers appeal to a bigger pool of would-be buyers. Real estate agent Marcos, who identified as Hispanic and owned a Brockton-based real estate agency, summarized this sentiment:

> "The majority of the buyers right now in Brockton are FHA buyers. And we get a lot of deals accepted regardless. Whether it is FHA or conventional, it's just addressing some of

the issues that could be coming up ahead of time. *Sometimes you can have the seller help make a property be FHA eligible.*"

The work of these agents in the Gateway City of Brockton also shows that there is nothing intrinsically impossible about selling a home to an FHA buyer: real estate agents' willingness to work with FHA buyers varied across places.

The stigmatization of FHA mortgages carries implications for racial inequality. After all, Black and Hispanic homebuyers are much more likely to rely on FHA mortgages to buy a home. They could face unequal opportunities to buy a home across different cities. A Black buyer relying on FHA stands little chance of winning a bidding war on a house in desirable, suburban Newton or Cambridge, partly because of their mortgage product. As a result, in highly competitive markets FHA stigma can erect new barriers to homebuying. The uneven stigma of FHA across places may also contribute to racial segregation: as buyers get sorted into high- versus low-FHA housing markets. In the next section, we examine these questions through quantitative data.

Quantitative Findings: FHA Mortgages Become Even More Concentrated

I. Descriptive Analysis

Turning to the quantitative data, we found that FHA mortgages were highly concentrated in just a few cities across Massachusetts. As **Figure 6** shows, in nine cities over a quarter of all mortgaged home purchase were made with an FHA mortgage. The "Gateway Cities" or post-industrial cities like New Bedford, Springfield, and Brockton – the site of our qualitative research – dominated the highest share list. These economically struggling cities have historically housed lower-income populations and elsewhere may also be called Legacy Cities. The term "Gateway cities" comes from their popularity with groups of immigrants who have formed new ethnic enclaves.[70] On average the 11 Gateway cities saw 19.4 percent of all home purchases use an FHA loan during the pandemic.

Figure 6: Top 10 Cities and Towns with Highest and Lowest FHA Share (2018 - 2019)

Top 10 Lowest FHA Share		Top 10 Highest FHA Share	
City/Town	**FHA Share**	**City/ Town**	**FHA Share**
Brookline	0.3%	New Bedford	28.9%
Dover	0.5%	Springfield	27.9%
Cambridge	0.5%	Lawrence	27.2%
Wellesley	0.7%	Webster	27.2%
Needham	0.8%	***Brockton***	***26.6%***
Provincetown	0.8%	Fall River	25.9%
Arlington	0.9%	West Warren	25.5%
Nantucket	0.9%	Warren	25.0%
Newton	0.9%	Ware	25.0%
Belmont	1.1%	Chicopee	24.8%

Note: Share of mortgages that are FHA mortgages in cities and towns in Massachusetts.
Source: Analysis of HMDA data 2018-2019

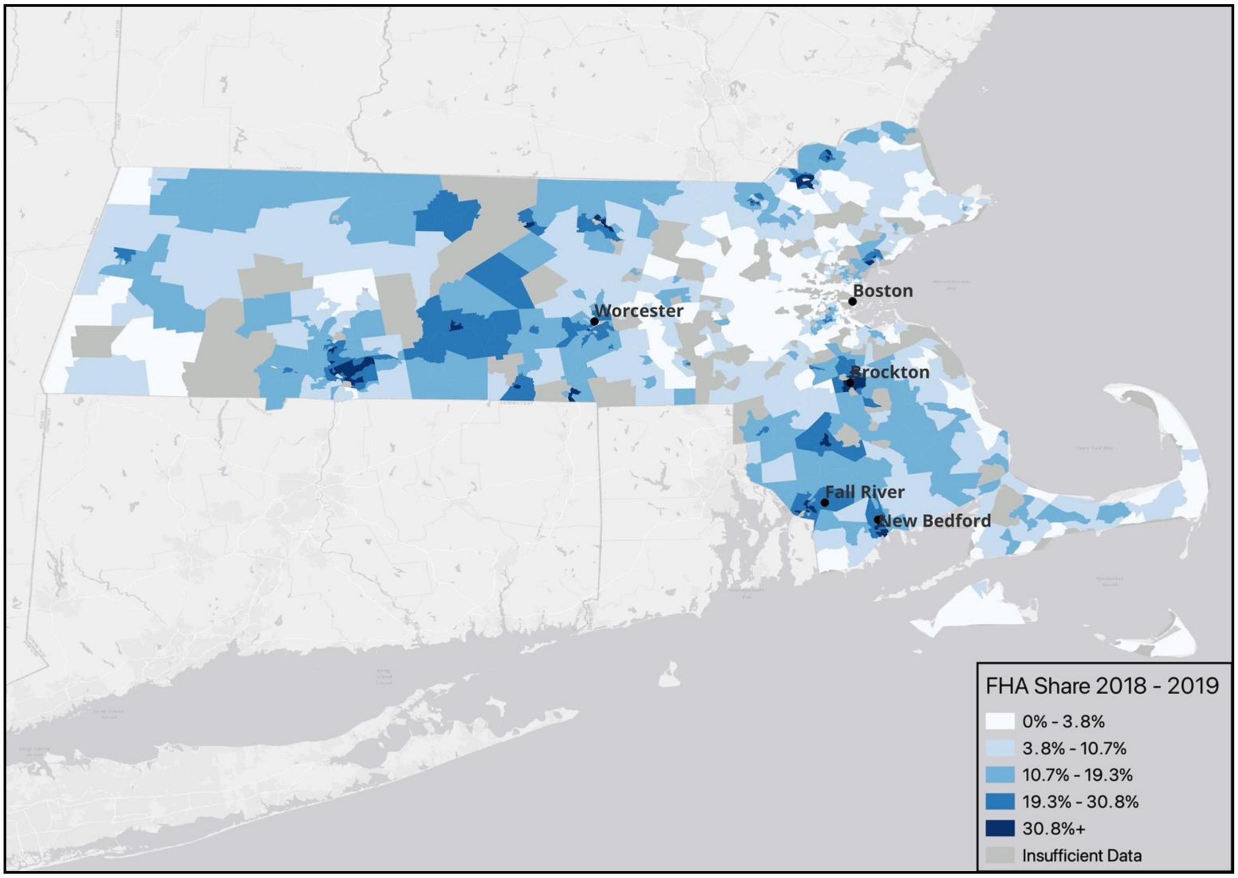
By contrast, low FHA places were disproportionately white and higher income. In 9 cities and towns less than 1 percent of homes were sold with an FHA mortgage prior to the pandemic. Many of the cities on this list are exclusive, historically white, and affluent suburbs of Boston.

This spatial concentration of FHA mortgages is even more striking on a map, as shown below. **Figure 7A** shows the spatial concentration of FHA buyers at the neighborhood (census tract) level. The lowest FHA share cities are easily identifiable in this map, given the stark white that is just west of Boston. This is where cities like Weston and Wellesley are located.

By contrast, the Gateway cities stand out as pockets with high FHA shares. Springfield, New Bedford, and Brockton especially have highly concentrated FHA shares in downtown neighborhoods, with a decrease in concentration as you get further away from these cities. It is also notable that the FHA share remains high between Gateway cities, such as between

Worcester and Springfield or Fall River and New Bedford. We find significant shares of FHA buyers between these places.

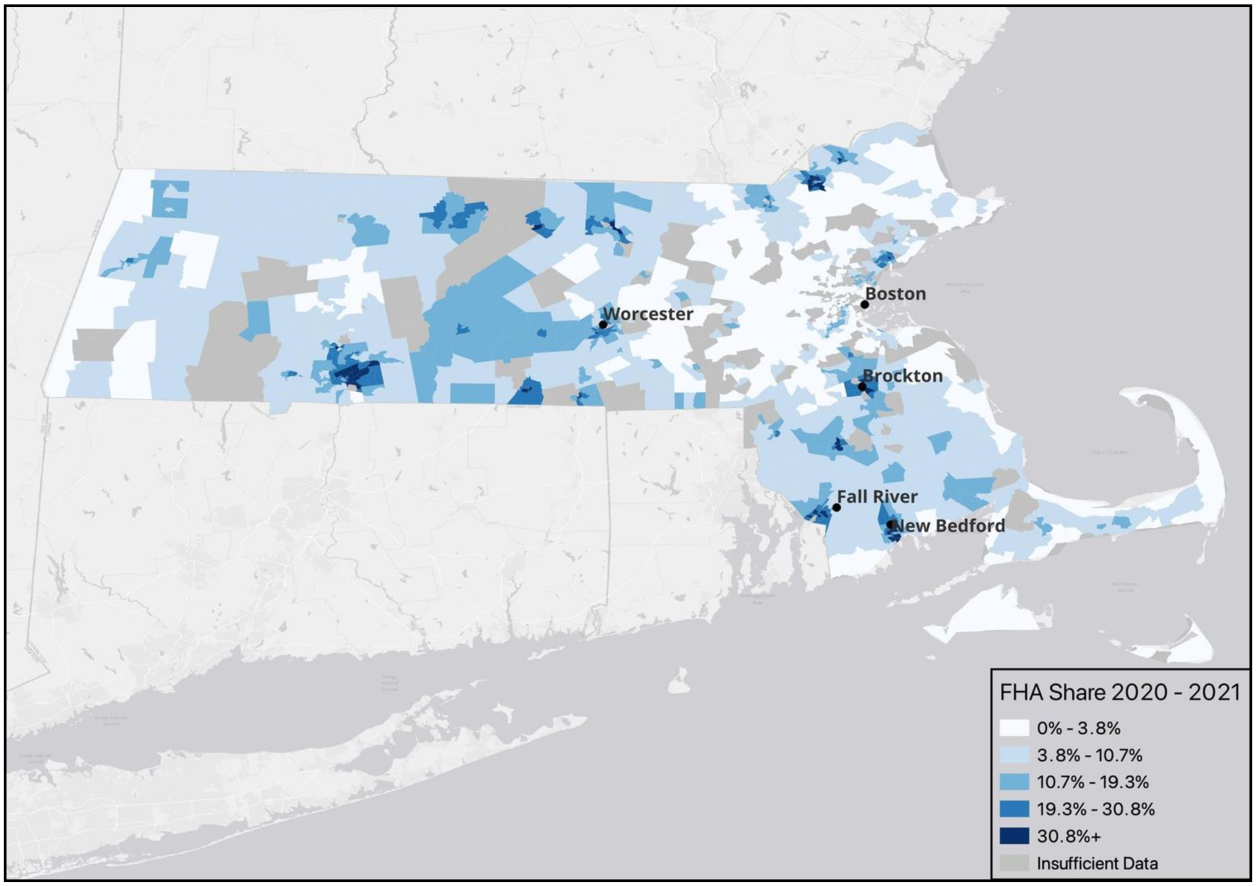
Figure 7A: FHA Mortgages Were Highly Concentrated in Gateway Cities Pre-Pandemic



Note: Share of FHA mortgages of all mortgages by tract across Massachusetts.
Source: Analysis of HMDA 2018 and 2019

During the pandemic, FHA share dropped across Massachusetts, mirroring national trends. **Figure 7B** below shows how FHA share dropped in the Commonwealth during the pandemic and remained highly concentrated. Holding the map categories constant allows for the visualization of these trends. For example, FHA shares drop even more in the suburban communities west of Boston, as the sea of white tracts expands in every direction during the pandemic. We also see a decrease in FHA shares in tracts between the Gateway cities. The one constant appears to be the concentrated FHA buying in the downtown tracts of these post-industrial places. As prices and competition increased across the board, buyers were even further limited to places where FHA loans could remain competitive. There are very few neighborhoods with over 30 percent of FHA share that are *not* located in these Gateway cities.

Figure 7B: FHA Shares Dropped During the Pandemic but Remained Highly Concentrated in Gateway Cities



Note: Share of FHA mortgages of all mortgages by tract across Massachusetts.
Source: Analysis of HMDA 2020 and 2021

These pandemic FHA buying trends are even more apparent when analyzing the top 10 highest and lowest lists but for 2020-2021. **Figure 8** below shows that the only city to increase in FHA share was Springfield, a small increase from 27.9 percent to 28.1 percent. Brockton saw the starkest decrease dropping over 4 percent from 26.6 percent pre-pandemic to 22.4 percent post-pandemic.

Figure 8: Top 10 Cities and Towns with Highest and Lowest FHA Shares (2020 - 2021)

Top 10 Lowest FHA		Top 10 Highest FHA	
City/Town	**FHA Share**	**City/Town**	**FHA Share**
Brookline	0.1%	Springfield	28.1%
Dover	0.3%	Lawrence	26.7%
Nantucket	0.3%	New Bedford	26.1%
Cambridge	0.4%	Webster	24.2%
Wellesley	0.5%	Fall River	23.6%
Newton	0.5%	Chicopee	22.7%
Arlington	0.5%	***Brockton***	***22.4%***
Provincetown	0.6%	Southbridge	21.5%
Lexington	0.6%	West Springfield	20.8%
Needham	0.7%	Athol	20.5%

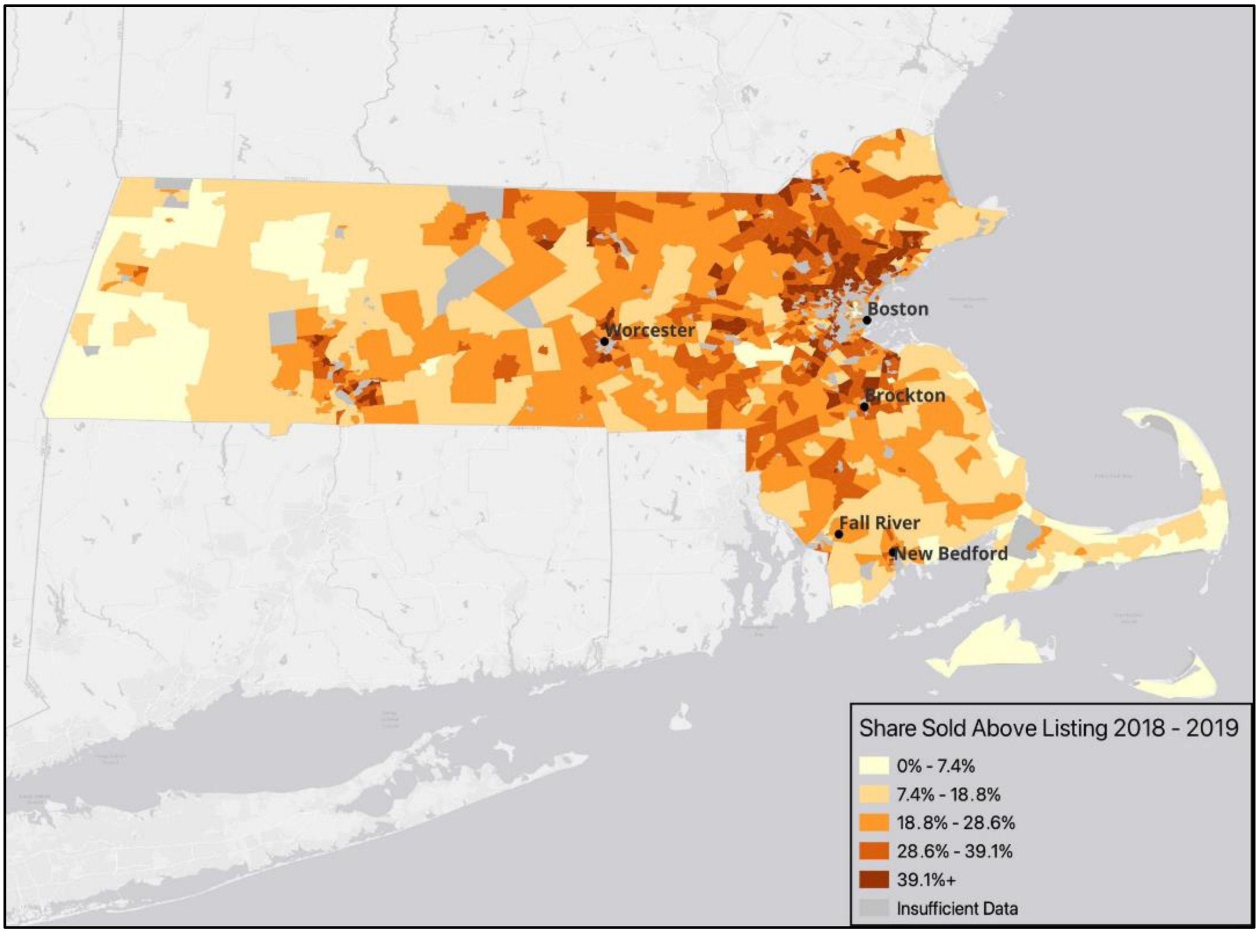
Note: Share of mortgages that are FHA mortgages in cities and towns in Massachusetts.
Source: Analysis of HMDA data 2020-2021

The total number of cities and towns where less than 1 percent of homes were sold with an FHA mortgage grew from 9 to 17: FHA mortgages became not just rare in these places but virtually non-existent. Brookline, Wellesley, Cambridge, and Dover all found ways to get an even lower FHA share during 2020-2021 compared to 2018-2019. Nantucket went from 0.9 percent to 0.3 percent FHA share during this time, as home prices increased and housing markets tightened.

Overbidding Became Much More Common During the Pandemic

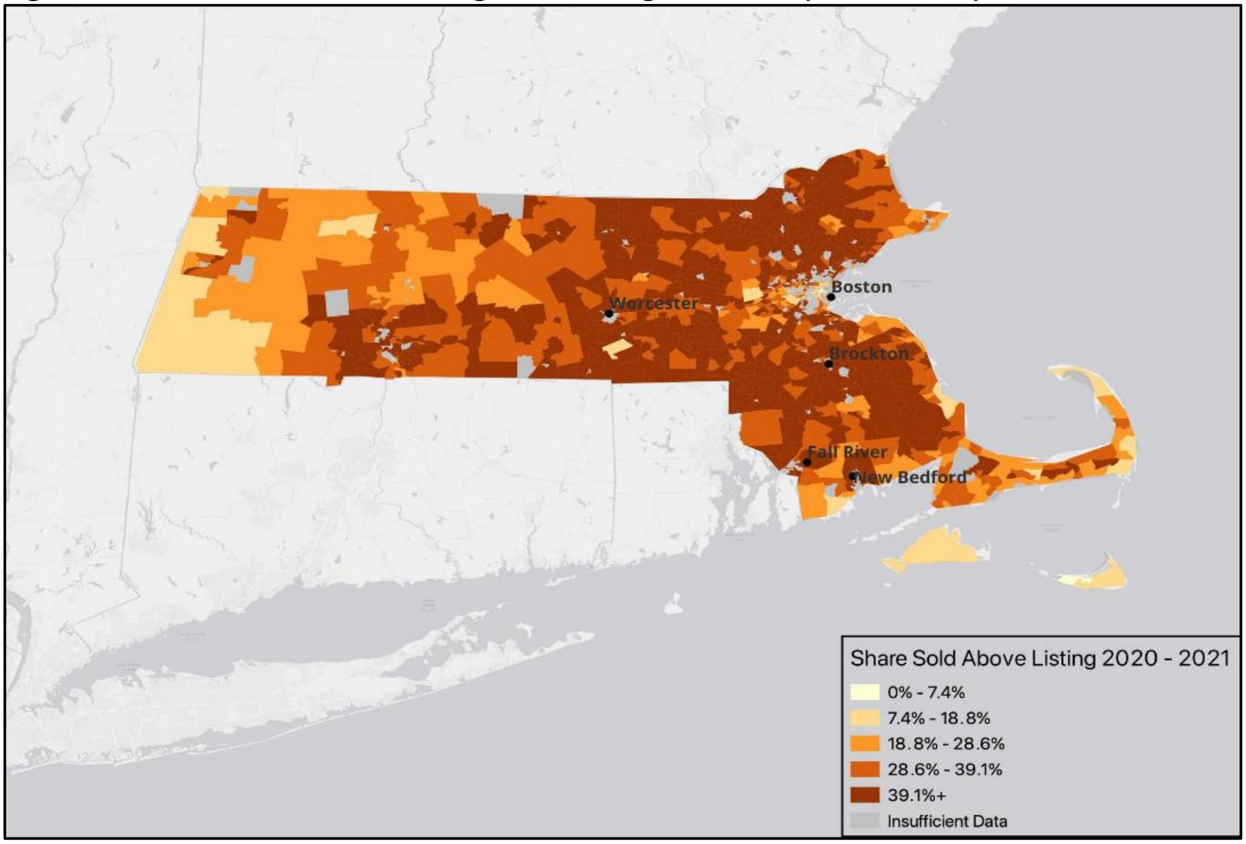
While FHA shares fell drastically during the pandemic, overbidding became commonplace. Overbidding became ubiquitous in 2020 and 2021 as also shown in **Figure 9A** and **Figure 9B**. Using Zillow tract-level data on shares of overbidded properties, in many Massachusetts tracts more than 40 percent of homes sold above asking from 2020 to 2021.This trend towards greater overbidding during the pandemic has been well-documented: historically low interest rates and increased savings drove more buyers unto the housing market, while inventory remained low and new construction stalled: this “pent-up” demand drove bids up across the country.[71]

Figure 9A: Homes Sold Above Asking Price Before the Pandemic (2018 – 2019)



Note: Share of all homes sold above listing price.
Source: Analysis of Zillow tract-level data 2018-2019

Figure 9B: Homes Sold Above Asking Price During Pandemic (2020 – 2021)



Note: Share of all homes sold above listing price.
Source: Analysis of Zillow tract-level data 2020-2021

Looking more closely at Figure 9B, overbidding also increased in Gateway Cities like Brockton, Springfield, and New Bedford. Overbidding was slightly less common in Western Massachusetts but still much more common than it was in 2018 and 2019. This trend begs the question: How were overbidding trends related to where FHA buyers were buying homes? How did the stigma of FHA mortgages, as we described previously, impact where and how homebuyers were able to buy? The next few sections will explore these questions with our quantitative analysis.

II. Regression Analysis

Our quantitative analysis will measure predictors of FHA shares at the neighborhood level. We ran two sets of step-wise models to contrast the pre-pandemic to the competitive pandemic housing market:[72] one set of models covers 2018-2019 and the second set 2020-2021 where overbidding significantly increased.

We excluded the city of Boston from our regression analysis and descriptive statistics below, as we were most interested in shifts in FHA shares and overbidding in traditionally more affordable housing markets like the Gateway Cities. FHA mortgages are rarely used in Boston: during the pandemic only 3.5 percent of mortgaged sales in Boston were with an FHA loan. This is not only because Boston has become exceedingly expensive, but also because the city has a unique first-time homebuyer mortgage program, the One+ Boston mortgage, which subsidizes downpayment, interest rates and does not require mortgage insurance. These features make it a much-preferred choice over FHA in the city.[73]

Figure 10 shows summary statistics for all Massachusetts neighborhoods outside of Boston and reveals interesting trends. FHA share in Massachusetts dropped from 12.7 percent to 10.1 percent during the pandemic. At the same time, overbidding became much more common, going from 26 percent of sales to 43 percent of homes being sold over asking during the pandemic. The mean and median of the other independent and control neighborhoods are shown here as well, including of neighborhood racial demographics and vacancy rates.[74]

Figure 10: Descriptives for Stepwise Models

Variable	Variable Type	Mean (%)	Median (%)
FHA Share 18-19	Dependent	12.7	10.1
FHA Share 20 - 21	Dependent	10.5	6.8
FHA Share 18 - 21	Dependent	11.6	8.3
Share Sold Above Listing 18-19	Independent	26.4	26.0
Share Sold Above Listing 20 - 21	Independent	42.7	43.6
Share Sold Above Listing 18 - 21	Independent	34.5	35.0
Proportion of Neighborhood -Black	Independent	5.8	2.7
Proportion of Neighborhood -Hispanic	Independent	12.1	5.4
Vacancy Rate in Neighborhood	Independent	3.0	2.2
Neighborhood to MSA Income Percentage	Control	102.6	102.0
Poverty Rate in Neighborhood	Control	9.6	6.6
Median Building Age in Neighborhood	Control	54.9	61.0
Percent Renter in Neighborhood	Control	34.8	28.6
Percent College Educated in Neighborhood	Control	42.3	39.8

Source: FHA shares from HMDA data, overbidding data from Zillow, neighborhood variables from 2020 five-year ACS estimates

Turning attention to the models, we begin with the pre-pandemic stepwise models shown below in **Figure 11**. The first model is strictly the control variables to predict variations in share of loans that were FHA loans at the tract level. Already, this step showcases a high R-squared of 0.69, signaling a strong model fit, despite only including six covariates.

Model 2 introduces the primary independent variable, overbidding. For Models 2, 3, and 4, the overbidding variable remains a significant predictor of FHA shares. Moreover, the strength of overbidding's impact on the model diminishes in the 3rd and 4th models when race/ethnicity and vacancy are added. This evidence suggests there is some spatial overlap between where overbidding was occurring and the race/ethnicity of the neighborhood and vacancy rates. In other words, overbidding was higher in more diverse neighborhoods with higher rates of vacancy.

The race / ethnicity of neighborhoods and vacancy rates were stronger predictors for FHA share than overbidding. All three variables were significant at the highest level and had the largest coefficients. For vacancy, a *one percent* increase in vacancy rates equals a *25 percent* increase in the share of FHA loans in that same neighborhood. Here, historical decline and disinvestment are signs of neighborhoods where FHA loans can compete. This rhymes with the descriptives and spatial analysis, where we saw the highest FHA shares in Gateway Cities characterized by their higher vacancy rates and other signs of decline.

Figure 11: Estimating FHA Shares in Tracts (2018-2019) Using OLS Regression, Stepwise Models

	Model 1 (Controls)		**Model 2 (Overbidding)**		**Model 3 (Neighborhood Race/Ethnicity)**		**Model 4 (Vacancy Rate)**	
Variable	Estimate	Std.Err.*	Estimate	Std.Err.*	Estimate	Std.Err.*	Estimate	Std.Err.*
Share Sold Above Listing 18-19			0.092***	0.015	0.033*	0.014	0.046*	0.014
Proportion of Neighborhood -Black					0.182***	0.035	0.181***	0.034
Proportion of Neighborhood -Hispanic					0.209***	0.025	0.210***	0.024
Vacancy Rate in Neighborhood							0.251***	0.073
Neighborhood to MSA Income Percentage	0.0268***	0.008	0.022**	0.007	0.021***	0.006	0.022***	0.006
Poverty Rate in Neighborhood	0.1774***	0.045	0.258***	0.061	0.086	0.060	0.076	0.059
Median Building Age in Neighborhood	0.002***	0.000	0.001**	0.000	0.001	0.000	0.000	0.000
Proportion of Neighborhood - Renter	-0.001	0.016	-0.028	0.015	-0.056***	0.014	-0.057***	0.014
Proportion of Neighborhood - College Educated	-0.414***	0.013	-0.380***	0.012	-0.340***	0.013	-0.335***	0.012
(Intercept)	24.842***	0.894	21.795***	0.913	21.073***	0.838	19.957***	0.849
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05	R-sq = 0.687		R-sq = 0.685		R-sq = 0.740		R-sq= 0.745	

**Robust standard errors clustered at census tract*

Figure 12: Estimating FHA Shares in Tracts (2020-2021) Using OLS Regression, Step-Wise Models

	Model 1 (Controls)		Model 2 (Overbidding)		Model 3 (Neighborhood Race/Ethnicity)		Model 4 (Vacancy Rate)	
Variable	Estimate	Std.Err.*	Estimate	Std.Err.*	Estimate	Std.Err.*	Estimate	Std.Err.*
Share Sold Above Listing 18-19			0.1198***	0.013	0.033*	0.014	0.046*	0.014
Proportion of Neighborhood -Black					0.182***	0.035	0.181***	0.034
Proportion of Neighborhood -Hispanic					0.209***	0.025	0.210***	0.024
Vacancy Rate in Neighborhood							0.251***	0.073
Neighborhood to MSA Income Percentage	0.0317***	0.007	0.0249***	0.007	0.021***	0.006	0.022***	0.006
Poverty Rate in Neighborhood	0.2308***	0.058	0.3713***	0.063	0.086	0.060	0.076	0.059
Median Building Age in Neighborhood	0.0020***	0.001	0.0010***	0.001	0.001	0.000	0.000	0.000
Proportion of Neighborhood - Renter	0.0320*	0.016	0.0026	0.014	-0.056***	0.014	-0.057***	0.014
Proportion of Neighborhood - College Educated	- 0.3680***	0.014	-0.2955***	0.012	-0.340***	0.013	-0.335***	0.012
(Intercept)	0.0317***	0.007	10.7207***	1.051	21.073***	0.838	19.957***	0.849
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05	R-sq = 0.687		R-sq = 0.685		R-sq = 0.740		R-sq= 0.745	

**Robust standard errors clustered at census tract*

Moreover, comparing **Figure 11** (pre-pandemic model) to **Figure 12** (pandemic model), the most noticeable difference is the expanded impact of overbidding. Overbidding increased a lot during the pandemic and the statistical significance and the coefficient bear that truth out in the model. In the pandemic step-wise models, overbidding as a predictor of tract-level FHA shares is significant at the highest level through all models and has a slightly higher coefficient for models 2, 3, and 4. Interestingly, the expanded association between overbidding and FHA share does not detract from the role of neighborhood race / ethnicity, or vacancy rate. Those variables remain significant at the highest levels again.

For both sets of models, the headline is the same. FHA buyers had a harder time competing during the pandemic without overbidding. These overbids were most common in more diverse neighborhoods, with higher vacancy rates. This finding raises another question: Did FHA buying contribute to residential segregation during this period?

III. Dissimilarity Indices: How Segregated Are FHA Buyers?

In this final part of the analysis, we looked more closely at the spatial impacts of FHA buyers being outcompeted. Specifically, we analyzed whether FHA buyers became *more segregated* when housing markets became more expensive and competitive during the pandemic.

To do so, we calculated indices of dissimilarity (also called "D index"), which measures how unevenly two groups are distributed across spatial units.[75] As a measure of segregation, this index conceptually represents how many members of one group would have to move to achieve an even distribution across space. For example, if 5 percent of homebuyers are Black in Massachusetts, their distribution would be even if *in every tract* 5 percent of homebuyers are Black. The D index is a number ranging from 0 to 100, where 0 indicates full integration (based on evenness across places) and 100 indicates complete segregation. The higher the score, the more segregated a group is. The dissimilarity index is often used to measure racial segregation but can be used to capture the segregation between any two groups: including between FHA buyers versus all other mortgaged buyers.

Figure 13 below shares our results. We calculated how unevenly FHA buyers were distributed across tracts compared to all other mortgaged buyers in 2018 and 2021. We also calculated how segregated Hispanic and Black buyers were compared to white buyers in Massachusetts.

Figure 13: FHA Buyers Became More Segregated During the Pandemic, While Black and Hispanic Buyers Became Less Segregated

	2018	2021
FHA buyers - All other mortgaged buyers	38	**43**
Hispanic - white homebuyers	46	42
Black - white homebuyers	57	55

Note: Indices of dissimilarity based on all Massachusetts tracts outside of Boston.
Source: Analysis of 2018 and 2021 HMDA data

Looking at 2018, we see that Black homebuyers had the highest segregation index (57) and were more segregated than either Hispanic buyers or FHA buyers. This index indicates that 57 percent of Black homebuyers would have to buy in a different tract, to accomplish an even distribution of Black homebuyers across all Massachusetts tracts outside of Boston. However, going from 2018 to 2021, we see two competing trends happening at the same time.

We find that FHA buyers became *more segregated* during the pandemic. They were significantly more unevenly concentrated (more FHA buyers would have to move to achieve an even distribution) in 2021 than they had been in 2018: their segregation index rose from 38 to 43. This finding is consistent with our previous results and indicates that growing competitiveness and rising home prices limited FHA buyers to a diminishing number of tracts.[76] They faced most competition in tracts that were already low-FHA prior to the pandemic. Tight markets made them more unevenly distributed.

However, at the same time, we found that this greater segregation of FHA buyers did not drive greater segregation of Black and Hispanic buyers from 2018 to 2021. Our dissimilarity indices show that Black and Hispanic buyers became slightly *less* segregated over this period. This is surprising, as Black and Hispanic buyers were more than four times as likely as white buyers to use FHA mortgages in Massachusetts: we may expect that greater segregation of FHA buyers and greater segregation of homebuyers of color go together.

By contrast, our findings on greater FHA segregation coinciding with declines in Black and Hispanic buyer segregation, indicate that *white FHA buyers* were most outcompeted in tracts where they used to be able to buy a home. Given racial segregation in Massachusetts, Black and Hispanic FHA buyers were already buying in high-FHA neighborhoods (such as Brockton and other Gateway Cities) and were more likely to compete against fellow FHA buyers. White buyers, by contrast, were more likely to buy homes in places where FHA was relatively rare: we see a greater loss of FHA originations in these low-FHA places. Consequently, we find that FHA buyers became more segregated when markets became more tight and more expensive, but greater FHA segregation did not necessarily drive greater racial segregation in homebuying during the pandemic.

Conclusion

This report showed that homebuyers who use FHA mortgages face unique challenges when competing to buy a home in tight housing markets. Today FHA mortgages offer low down payment requirements, a larger credit box, and no "risk-based" pricing common to conventional mortgages. With these characteristics, FHA has helped facilitate broader access to homeownership, especially for first-time homebuyers, who include many Black and Hispanic families. While FHA intends to level the playing field in who can access homeownership, we found that in practice, FHA buyers faced unique barriers when having to compete to buy a home. They were often outcompeted in multiple bidding situations, which continue to be common in housing markets nationwide.

Our findings carry implications for racial equity in who has access to homeownership. Previous research has shown racial inequalities in who gets denied a mortgage, as well as in the quality of mortgage products that applicants are approved for.[77] While Dodd-Frank regulation has outlawed subprime mortgage products, concerns persist that Black and Hispanic buyers may get steered towards FHA mortgages even if they qualify for more affordable loans.[78] However, this report highlights the risk of discrimination at a different moment in the homebuying journey: **during competitive bidding for a house**. In our qualitative work, we found indications that homebuyers were evaluated and faced unequal chances based on the financing they used, which we also call "source of income" or "source of financing" discrimination.

As Black and Hispanic homebuyers are much more likely to use FHA mortgages, source of income discrimination can perpetuate racial inequalities in whether and where people are able to buy a home and how much they have to pay to win a bidding war. FHA buyers struggle to compete in certain markets (often more affluent, white, "low-FHA" places) more than in other markets (lower-income, minority, "high-FHA" places). The difficulty of FHA buyers to compete in certain markets may inadvertently perpetuate racial segregation: as they limit FHA buyers to places where FHA mortgages are common, while buyers face uphill battles to compete in low FHA neighborhoods. Communities with the highest shares of FHA mortgages in Massachusetts were mostly places with large Black and Hispanic populations.

In our quantitative analysis, we also found that places with higher shares of FHA buyers saw higher shares of overbidding during the pandemic. This relationship indicates that FHA buyers may more commonly resort to overbidding as a strategy to win during competitive bidding. Based on our qualitative work, this makes sense, not only as a strategy to overcome the stigma of an

FHA bid compared to conventional offers, but also as FHA buyers are unable to engage in other competitive strategies, such as waiving the FHA appraisal and inspection.

While this report focuses on pandemic-era Massachusetts, our findings indicate worrisome trends around who can buy a home and where in tight markets. Homebuying barriers go beyond mortgage approval or affordability concerns, but also happen during competitive bidding. We encourage government agencies and researchers to conduct further research on this topic. In particular, Veterans Affairs (VA) buyers face many of the same constraints and potential biases as FHA buyers, associated with using a government-insured mortgage product.[79] Future work can also examine how investors compete with FHA homebuyers: with their stiff competition in local markets, would-be buyers may give up after long fruitless home searches or feel forced to overbid to stand out against cash offers.

Policy Recommendations

We offer a range of policy recommendations to help alleviate FHA buyers' struggle to compete in tight markets. We argue that the limited competitiveness of FHA mortgages in tight housing markets is a Fair Housing issue. While FHA seeks to broaden access to mortgage credit, especially for underserved groups, the value of doing so is diminished when it does not result in equivalent fair access to home buying.

1. ***More states and cities should pass "source of income" or "source of financing" anti-discrimination statutes and enforce them to protect homebuyers.***

Source-of-income anti-discrimination statutes make it illegal to refuse to rent, sell, or lease housing because of a lawful source of income that people provide. Source of income was not included as a protected class in the original Fair Housing Act of 1968. But currently, 16 states, the District of Columbia, 21 counties, and 85 cities have enacted source-of-income anti-discrimination protections, many of them in recent years.[80] Originally, these laws were intended to better protect renters who use subsidized Section 8 vouchers against discrimination by landlords and real estate brokers. A robust set of research has documented how discrimination against voucher holders occurs and how it often limits them to lower-quality units and low-opportunity neighborhoods.[81] However, this legislation offers a blueprint for other states and local governments seeking to better protect renters *and homebuyers* against discrimination. As enacted, these statutes often are not limited to rental housing discrimination and could protect homebuyers as well.[82]

Our recommendation is two-fold. First, we encourage more states and local municipalities to pass source of income legislation, so tenants and homebuyers will be better protected. Second, we urge HUD, State Attorney Generals, and fair housing organizations to start applying this legal framework to homebuyers too. We think it can be used to enforce and litigate the most egregious cases of discrimination against homebuyers who use government-insured mortgages. For example, a discrimination case could be based on anti-FHA language in MLS listings and real-estate advertisements or based on how agents advise their clients on the merits of various bids and steer them towards conventional or cash offers.[83] Such a law can serve as a deterrent to discrimination and help raise awareness of the unfair stigma associated with FHA mortgages.

2. ***The Federal Housing Administration should critically evaluate and simplify FHA inspection criteria.***

Many myths persist about FHA inspections, including confusion about whether FHA buyers can waive inspection requirements. They can waive a general inspection much like conventional buyers. However, the mandatory FHA appraisal looks at a range of inspection elements, mostly focused on the basic functioning of key systems and the safety of the home.

We advise FHA and HUD to critically review and evaluate where it can simplify inspection requirements, to help reduce homebuying hurdles over non-essential, smaller home repair issues. Such a simplification would support homebuyers' safety and homeownership sustainability, while not acting as a deterrent to find a home. Given how much confusion persists, we also encourage FHA to publicize an accessible "checklist" on their website, which would give home sellers, homebuyers, housing counselors, real estate agents and others a reliable source of information. Such a basic checklist should also make it easy for home sellers and agents to evaluate a home before sale and feel secure that there will be no delays or unexpected costs.

FHA can also help dispel misconceptions that FHA is a "hard to close" sale by publishing quarterly data on the average closing times for FHA versus conventional home purchase loans. Together, these interventions would work on keeping FHA an attractive loan product for a broad range of homebuyers.

3. ***Real estate agent trade associations can better educate real estate agents on source of financing discrimination and how to successfully work with FHA buyers.***

This report documented how real estate agents remain key brokers in home sales: they often guide home sellers in how to interpret and decide on the "best bid" to accept for their house. Discrimination, including based on source of financing, can occur during this step in the home-selling process, giving FHA buyers an unfair disadvantage.

Real estate associations such as NAR, NAHREP, and NAREB can help by making source of financing discrimination part of their Code of Ethics and their training of real estate agents on how to fairly communicate housing bids to their sellers. It is also important that they offer ongoing education credits that require sellers' agents to be informed about how to successfully work with the FHA, VA, and USDA government-insured mortgage products. In the end, no FHA buyer should be unfairly disadvantaged just because a broker is unfamiliar with this product and fails to adequately educate and inform a home seller.

4. ***Congress/ HUD should increase funding for Fair Housing Centers to investigate FHA homebuying trends and bring cases against lenders, brokers, or real estate agents that perpetuate source of financing discrimination.***

We believe that HUD PD&R and FHEO should make it a priority to track potential instances of discrimination against FHA homebuyers. We would like to see more research on discrimination that happens during the process of bidding on a home, including when home sellers – with the advice of their real estate agent – decide on the best bid on their home. In addition, we advocate for expanded funding for "source of financing" discrimination testing and enforcement in the homebuyer market: much like has been done in rental markets around Section 8 voucher holders and source of income discrimination.

Appendix: Technical Details

We subsetted HMDA data to only include originated, first-lien mortgages for site-built properties of one to four units in Massachusetts. We excluded denied loan applications, refinancing loans, and loans for manufactured homes and for homes over four units.

Our main outcome variable was the share of FHA loans (as proportion of all home purchase loans) by census tract. We compared the pre-pandemic period (2018-2019) to the overheated housing markets of the pandemic period (2020-2021).

One of our key predictors was race, including the identified race of homebuyers and the racial composition of census tracts. Drawing on HMDA's variables of race, second race, and ethnicity of the buyer, we coded borrowers as non-Hispanic white, Black, Asian and Pacific Islander, or Multiracial. Those identifying as Hispanic could be of any race(s). Race or ethnicity of the borrower was missing for 15 percent of all approved home loans.[84] Given that the purpose of HMDA is to help track and prevent potential lending discrimination, this is a surprisingly large proportion of missing data.[85] We excluded loans without race or ethnicity data from our analyses.

Finally, to better understand both neighborhood characteristics and trends in local housing markets over time, we merged HMDA data with public American Community Survey (ACS) data and 2018-2021 overbidding data for all tracts in Massachusetts, which Zillow shared for this report.

Estimating for FHA Share

Below is the Ordinary Least Squares (OLS) equation of the form where **Yi** is the dependent variable estimating FHA share. **H** is a vector representing the hotness of the housing market measured by overbidding data from Zillow. **N** is a vector of neighborhood variables of interest including racial composition and vacancy rate at the tract level. Finally, **C** is a vector of covariates for other potential neighborhood variables related to FHA share like metro income, poverty rate, percent college educated, median age of buildings, and percent renter.

$$\boldsymbol{Y_i = a + \beta_1 H_i + \beta_2 N_i + \beta_3 C_i + \varepsilon_i}$$

Endnotes

[1] Kenneth T. Jackson, *Crabgrass Frontier: The Suburbanization of the United States* (New York: Oxford University Press, 1985); Kevin Fox Gotham, "Racialization and the State: The Housing Act of 1934 and the Creation of the Federal Housing Administration," *Sociological Perspectives* 43, no. 2 (2000): 291–317, https://doi.org/10.2307/1389798; Michael J. Leah, "Innovation and the Cost of Mortgage Credit: A Historical Perspective," *Housing Policy Debate* 7, no. 1 (1996): 147–74.
[2] Richard Rothstein, *The Color of Law: A Forgotten History of How Our Government Segregated America* (New York City: Liveright Publishing, 2017); Thomas J. Sugrue, *The Origins of the Urban Crisis: Race and Inequality in Postwar Detroit* (Princeton: Princeton University Press, 1996).
[3] Daniel Aaronson, Daniel Hartley, and Bhashkar Mazumder, "The Effects of the 1930s HOLC 'Redlining' Maps," *American Economic Journal: Economic Policy* 13, no. 4 (November 2021): 355–92, https://doi.org/10.1257/pol.20190414; Keeanga-Yamahtta Taylor, *Race for Profit: How Banks and the Real Estate Industry Undermined Black Homeownership* (Chapel Hill: University of North Carolina Press, 2019).
[4] U.S. Department of Housing and Urban Development, "Annual Report to Congress Regarding the Financial Status of the Federal Housing Administration Mutual Mortgage Insurance Fund" (Washington D.C., 2023), https://www.hud.gov/sites/dfiles/PA/documents/2023FHAAnnualReportMMIFund.pdf.
[5] Katie Jones, "FHA-Insured Home Loans: An Overview" (Washington D.C.: Congressional Research Service, 2022), https://www.everycrsreport.com/files/2022-01-21_RS20530_51769eeb6c33c57400df2fc6f74071609df609fb.pdf.
[6] FHA does not use LLPAs (Loan Level Price Adjustments) unlike GSE conforming mortgages. See also Adam Rust, "The New Hurdle to Home Ownership: How Loan Level Pricing Changes the Cost of and Access to Mortgage Credit" (Durham: The Community Reinvestment Association of North Carolina, n.d.), https://reinvestmentpartners.org/file_download/inline/8417c1a0-b313-48cb-a85a-5e3fe37051f1.
[7] Federal Housing Administration, "FHA Annual Management Report 2023" (Washington D.C., 2023), https://www.hud.gov/sites/dfiles/Housing/documents/FHAFY2023ANNUALMGMNTRPT.PDF.
[8] U.S. Department of Housing and Urban Development, "Annual Report to Congress Regarding the Financial Status of the Federal Housing Administration" (Washington D.C., 2019), https://archives.hud.gov/news/2019/2019FHAAnnualReportMMIFund.pdf.
[9] Joint Center for Housing Studies, "The State of the Nation's Housing 2020" (Cambridge, MA: Harvard University, November 2020), https://www.jchs.harvard.edu/state-nations-housing-2020.
[10] Richard Fry, "Amid a Pandemic and a Recession, Americans Go on a near-Record Homebuying Spree," *Pew Research Center* (blog), March 8, 2021, https://www.pewresearch.org/short-reads/2021/03/08/amid-a-pandemic-and-a-recession-americans-go-on-a-near-record-homebuying-spree/.
[11] Yonah Freemark, "No Single Policy Will Increase Housing Affordability. We Need a Comprehensive Strategy," Urban Institute, *Urban Wire* (blog), April 8, 2024, https://www.urban.org/urban-wire/no-single-policy-will-increase-housing-affordability-we-need-comprehensive-strategy; Freddie Mac, "Housing Supply: A Growing Deficit," May 7, 2021, https://www.freddiemac.com/research/insight/20210507-housing-supply; Emily Badger and Eve Washington, "The Housing Shortage Isn't Just a Coastal Crisis Anymore," *The New York Times*, July 14,

2022, sec. The Upshot, https://www.nytimes.com/2022/07/14/upshot/housing-shortage-us.html.Freema

[12] National Association of Realtors Research Group, "2021 Loan Type Survey," April 2021, https://cdn.nar.realtor/sites/default/files/documents/2021-loan-type-survey-06-08-2021.pdf.

[13] Brett Christophers, "How and Why U.S. Single-Family Housing Became an Investor Asset Class," *Journal of Urban History* 49, no. 2 (March 1, 2023): 430–49, https://doi.org/10.1177/00961442211029601.

[14] Harvard Joint Center for Housing Studies, "The State of the Nation's Housing 2022" (Cambridge, MA: Harvard University, 2022), https://www.jchs.harvard.edu/sites/default/files/reports/files/Harvard_JCHS_State_Nations_Housing_2022.pdf.

[15] In this report, we focus on the case of FHA mortgages. Buyers using VA mortgages can be expected to face many of the same challenges: these challenges impact government-insured borrowers more broadly. *See* Laurie Goodman and Janneke Ratcliffe, "The Tight Housing Market Boxes Out Government-Insured Borrowers, Widening Homeownership Gaps," *Urban Institute* (blog), June 16, 2021, https://www.urban.org/urban-wire/tight-housing-market-boxes-out-government-insured-borrowers-widening-homeownership-gaps; Graham Wood, "Overlooking FHA, VA Offers May Hurt Vulnerable Buyers," *Realtor Magazine*, May 9, 2023, https://www.nar.realtor/magazine/real-estate-news/bias-against-fha-va-loans-hurts-most-vulnerable-buyers.

[16] "About the Gateway Cities," MassINC, accessed August 9, 2022, https://massinc.org/our-work/policy-center/gateway-cities/about-the-gateway-cities/.

[17] Eva Rosen, *The Voucher Promise: "Section 8" and the Fate of an American Neighborhood* (Princeton: Princeton University Press, 2020); Matthew D. Marr, "Mitigating Apprehension about Section 8 Vouchers: The Positive Role of Housing Specialists in Search and Placement," *Housing Policy Debate* 16, no. 1 (January 1, 2005): 85–111, https://doi.org/10.1080/10511482.2005.9521535.

[18] Eva Rosen, "Rigging the Rules of the Game: How Landlords Geographically Sort Low–Income Renters," *City & Community* 13, no. 4 (December 1, 2014): 310–40, https://doi.org/10.1111/cico.12087; J. Rosie Tighe, Megan E. Hatch, and Joseph Mead, "Source of Income Discrimination and Fair Housing Policy," *Journal of Planning Literature* 32, no. 1 (February 1, 2017): 3–15, https://doi.org/10.1177/0885412216670603.

[19] Jackson, *Crabgrass Frontier*, 204; Harvard Joint Center for Housing Studies, "The State of the Nation's Housing 2022."

[20] Jackson, *Crabgrass Frontier*, 204–5; Jones, "FHA-Insured Home Loans: An Overview."

[21] Nikole Hannah-Jones, "What Is Owed," *The New York Times*, June 24, 2020, sec. Magazine, https://www.nytimes.com/interactive/2020/06/24/magazine/reparations-slavery.html; Taylor, *Race for Profit*; Brian D. Boyer, *Cities Destroyed for Cash: The FHA Scandal at HUD* (Follett, 1973).

[22] Rothstein, *The Color of Law*; Sugrue, *The Origins of the Urban Crisis*.

[23] Alanna McCargo and Jung Hyun Choi, "Closing the Gaps: Building Black Wealth through Homeownership," November 2020, 32.

[24] U.S. Department of Housing and Urban Development, "Annual Report to Congress Regarding the Financial Status of the Federal Housing Administration Mutual Mortgage Insurance Fund."

[25] Rachel G. Bratt, "The Role of HUD and the FHA: Conflicts in Mandate and Operations, Past and Present" (Boston, MA: Boston Federal Reserve Bank and the Harvard Joint Center for Housing Studies,

2020), https://www.bostonfed.org/publications/community-development-issue-briefs/2020/issue-4/the-role-of-hud-and-the-fha-conflicts-in-mandate-and-operations-past-and-present.aspx.
[26] Dan Immergluck, "From Minor to Major Player: The Geography of Fha Lending during the U.S. Mortgage Crisis," *Journal of Urban Affairs* 33, no. 1 (February 1, 2011): 1–20, https://doi.org/10.1111/j.1467-9906.2010.00539.x; Roberto Quercia and Kevin A. Park, "The Public Purpose of FHA," *Cityscape* 15, no. 3 (2013): 277–94.
[27] U.S. Government Accountability Office, "Federal Housing Administration: Decline in the Agency's Market Share Was Associated with Product and Process Developments of Other Mortgage Market Participants" (Washington D.C., June 2007), http://www.gao.gov/new.items/d07645.pdf. We expect that these sharp credit fluctuations have been moderated since the Dodd-Frank Act, which established Qualified Mortgage rules, outlawed risky mortgage products, and tightened control over the credit box.
[28] HUD, "FHA Single Family Market Share" (Washington D.C.: Office of Risk Management and Regulatory Affairs & Office of Evaluation, Reporting, and Analysis Division, 2024), https://www.hud.gov/program_offices/housing/rmra/oe/rpts/fhamktsh/fhamktqtrly.
[29] Both conventional and FHA loans are originated by private market lenders. Independent mortgage banks (IMB's) such as Rocket Mortgage have started to do most FHA lending. Most conventional mortgages are shaped by the loan-conforming standards of Fannie Mae and Freddie Mac, which purchase and securitize these loans. Government-insured products such as FHA and VA loans are securitized and bundled by Ginnie Mae.
[30] Megan Thibos, "How to Decide How Much to Spend on Your down Payment," Consumer Financial Protection Bureau, January 30, 2017, https://www.consumerfinance.gov/about-us/blog/how-decide-how-much-spend-your-down-payment/.
[31] Fannie Mae, "Loan-Level Price Adjustment (LLPA) Matrix," March 22, 2023, https://singlefamily.fanniemae.com/media/20786/display.
[32] US Department of Housing and Urban Development, "FHA Mortgage Limits List, FHA Forward," FHA Mortgage Limits List, FHA Forward, November 22, 2022, https://entp.hud.gov/idapp/html/hicost1.cfm.
[33] Federal Housing Finance Agency, "Conforming Loan Limit Values," November 29, 2022, https://www.fhfa.gov/DataTools/Downloads/Pages/Conforming-Loan-Limit.aspx.
[34] HUD Public Affairs, "Biden-Harris Administration to Save FHA Homebuyers Average $800 Annually on Mortgage Payments Through Premium Reduction," HUD.gov, February 22, 2023, https://www.hud.gov/press/press_releases_media_advisories/hud_no_23_041.
[35] HUD, "FHA National Servicing Center Loss Mitigation Services," HUD.gov, accessed April 13, 2023, https://www.hud.gov/program_offices/housing/sfh/nsc/lossmit.
[36] Congressional Research Service, "Single-Family Mortgage Pricing and Primary Market Policy Issues" (Washington D.C., December 2021), https://crsreports.congress.gov/product/pdf/R/R46980; Rust, "The New Hurdle to Home Ownership: How Loan Level Pricing Changes the Cost of and Access to Mortgage Credit."
[37] U.S. Department of Housing and Urban Development, "Annual Report to Congress Regarding the Financial Status of the Federal Housing Administration Mutual Mortgage Insurance Fund."
[38] Scholastica Cororaton, "More First-Time Buyers Are Obtaining Conventional Instead of FHA Financing," www.nar.realtor, February 22, 2021, https://www.nar.realtor/blogs/economists-outlook/more-first-time-buyers-are-obtaining-conventional-instead-of-fha-financing; Katherine Lee Nelson, "FHA and the Dual Mortgage Delivery Sytem in Philadelphia" (New Brunswick, NJ, Rutgers University, 2022), https://rucore.libraries.rutgers.edu/rutgers-lib/67375/.

[39] Immergluck, "From Minor to Major Player"; U.S. Department of Housing and Urban Development, "Annual Report to Congress Regarding the Financial Status of the Federal Housing Administration Mutual Mortgage Insurance Fund."
[40] Rust, "The New Hurdle to Home Ownership: How Loan Level Pricing Changes the Cost of and Access to Mortgage Credit."
[41] Nelson, "FHA and the Dual Mortgage Delivery Sytem in Philadelphia."
[42] Anna Jefferson and Hannah Thomas, "Mortgage Journeys: A Video Ethnography of the Homebuying and Mortgage Process," *Cityscape* 22, no. 1 (2020): 7–36.
[43] Purchase loans only. ICE Mortgage Technology, "Mortgage Solutions Software, Support & Education," 2024, https://www.icemortgagetechnology.com.
[44] Purchase loans only. ICE Mortgage Technology.
[45] Scholastica Cororaton, "More Homebuyers Making 20% Down Payments and Waiving Appraisal and Inspection Contract Contingencies," *Www.Nar.Realtor* (blog), June 23, 2021, https://www.nar.realtor/blogs/economists-outlook/more-homebuyers-making-20-down-payments-and-waiving-appraisal-and-inspection-contract-contingencies.
[46] Nelson, "FHA and the Dual Mortgage Delivery Sytem in Philadelphia."
[47] Dana Anderson, "Share of Homes Bought With Cash Ticks Down From November Peak," *Redfin News*, February 15, 2023, https://www.redfin.com/news/all-cash-purchases-fha-loans-december-2022/.
[48] Peter Grieve, "All-Cash Home Sales Are Booming in These Cities Thanks to High Mortgage Rates," *Money*, February 28, 2023, https://money.com/all-cash-home-sales-booming-cities/.
[49] Dan Immergluck, "Renting the Dream: The Rise of Single-Family Rentership in the Sunbelt Metropolis," *Housing Policy Debate* 28, no. 5 (September 3, 2018): 814–29, https://doi.org/10.1080/10511482.2018.1460385.
[50] US Department of Housing and Urban Development, "FHA Mortgage Limits List, FHA Forward"; Zillow, "Housing Data," *Zillow* (blog), February 2024, https://www.zillow.com/research/data/.
[51] Mark Muro et al., "Reconnecting Massachusetts Gateway Cities: Lessons Learned and an Agenda for Renewal" (Boston, MA: MassINC, February 2007), https://www.brookings.edu/research/reconnecting-massachusetts-gateway-cities-lessons-learned-and-an-agenda-for-renewal/.
[52] UMass Donahue Institute, "Mortgage Lending Trends in Massachusetts" (Boston: Massachusetts Community and Banking Council, June 2022), https://financialequity.net/wp-content/uploads/2022/06/MCBC-Mortgage-Report-2022.pdf; Boston Indicators et al., "Changing Faces of Greater Boston" (Boston, 2019), https://www.bostonindicators.org/-/media/indicators/boston-indicators-reports/report-files/changing-faces-2019/changing-faces-of-greater-boston.pdf; Sharon Cornelissen, Daniel McCue, and Raheem Hanifa, "Black Immigrant Homeownership: National Trends and the Case of Metro Boston" (Cambridge, MA: Harvard Joint Center for Housing Studies, January 5, 2023), https://www.jchs.harvard.edu/research-areas/working-papers/black-immigrant-homeownership-national-trends-and-case-metro-boston.
[53] Wood, "Overlooking FHA, VA Offers May Hurt Vulnerable Buyers"; Goodman and Ratcliffe, "The Tight Housing Market Boxes Out Government-Insured Borrowers, Widening Homeownership Gaps."
[54] Cornelissen has written extensively about Brockton in previous publications. See: Sharon Cornelissen and Luisa Godinez-Puig, "Homebuying Trends in Metro Boston Contribute to New Locations of Racial Segregation," *Harvard Joint Center for Housing Studies Blog* (blog), May 10, 2023, https://www.jchs.harvard.edu/blog/homebuying-trends-metro-boston-contribute-new-locations-racial-segregation; Sharon Cornelissen, "Discrimination in Home Lending and Appraisals: Challenges for Black

Homebuyers in Massachusetts," *Harvard Joint Center for Housing Studies Blog* (blog), March 30, 2023, https://www.jchs.harvard.edu/blog/discrimination-home-lending-and-appraisals-challenges-black-homebuyers-massachusetts; Madeline Ranalli and Sharon Cornelissen, "Homebuying Challenges in a Tight Housing Market: Perspectives from Brockton, Massachusetts," *Harvard Joint Center for Housing Studies Blog* (blog), September 8, 2022, https://www.jchs.harvard.edu/blog/homebuying-challenges-tight-housing-market-perspectives-brockton-massachusetts.

[55] Muro et al., "Reconnecting Massachusetts Gateway Cities."

[56] Joseph M. Kolar and Jonathan D. Jerison, "The Home Mortgage Disclosure Act: Its History, Evolution, and Limitations" (Washington D.C.: Buckley Kolar LLP, February 2006), https://buckleyfirm.com/uploads/36/doc/HistoryofHMDAapr06.pdf.

[57] Patricia McCoy, "The Home Mortgage Disclosure Act: A Synopsis and Recent Legislative History," *Journal of Real Estate Research* 29, no. 4 (January 1, 2007): 381–98, https://doi.org/10.1080/10835547.2007.12091207.

[58] Carlo Rotella, *Good with Their Hands: Boxers, Bluesmen, and Other Characters from the Rust Belt* (Oakland: University of California Press, 2004); Gerald Parker, "Preserving Memory: Streets of My Youth in Brockton, Massachusetts," *Massachusetts Historical Review* 7 (2005): 69–104.

[59] See also Sharon Cornelissen, Alexander Hermann, and Peyton Whitney, "Rethinking the American Dream: Small Multifamily Housing Remains Popular Among Immigrant Owners," *Harvard Joint Center for Housing Studies* (blog), June 2023, https://www.jchs.harvard.edu/blog/rethinking-american-dream-small-multifamily-housing-remains-popular-among-immigrant-owners.

[60] Jim Campen, "Changing Patterns XXV: Mortgage Lending to Traditionally Underserved Borrowers and Neighborhoods in Boston, Greater Boston and Massachusetts, 2017" (Somerville, MA: Massachusetts Community and Banking Council, November 2018), http://mcbc.info/wp-content/uploads/2018/11/CP25-Final-Report-Nov2018.pdf.

[61] Census Bureau, "American Community Survey (ACS)," Census.gov, 2019, https://www.census.gov/programs-surveys/acs; Ben Berke, "Brockton Is Now Majority Black, for First Time in City's History," *Enterprise News*, October 23, 2020, https://www.enterprisenews.com/story/news/local/2020/10/23/brockton-is-now-majority-black-for-first-time-in-citys-139-year-history/114467122/.

[62] Nelson, "FHA and the Dual Mortgage Delivery Sytem in Philadelphia."

[63] This barrier of credit scores is particularly acute for homebuyers of color. For example, in 2021 the average credit score for loans held in Fannie Mae's portfolio was 751, while the average credit score of Black households was 677 and 701 for Hispanic households. See: National Housing Resource Center, "Why Do Black and Brown Borrowers Have Such a Small Share of the Fannie Mae and Freddie Mac Loan Portfolio?," *National Housing Resource Center* (blog), November 4, 2021, https://www.hsgcenter.org/racial-equity-and-freddie-mac-and-fannie-mae/.

[64] US Census Bureau, "American Housing Survey," 2021, https://www.census.gov/programs-surveys/ahs.html.

[65] Harvard Joint Center for Housing Studies, "Improving America's Housing" (Cambridge: Harvard University, 2023), https://www.jchs.harvard.edu/improving-americas-housing-2023.

[66] Rosen, "Rigging the Rules of the Game"; Rosen, *The Voucher Promise*; Tighe, Hatch, and Mead, "Source of Income Discrimination and Fair Housing Policy."

[67] Tighe, Hatch, and Mead, "Source of Income Discrimination and Fair Housing Policy"; Daniel Teles and Yipeng Su, "Source of Income Protections and Access to Low-Poverty Neighborhoods" (Washington DC:

Urban Institute, October 2022), https://www.urban.org/sites/default/files/2022-10/Source%20of%20Income%20Protections%20and%20Access%20to%20Low-Poverty%20Neighborhoods.pdf.
[68] The researcher lived in Brockton for a year to help conduct this qualitative research. She bought a $450,000 home in a typical, diverse Brockton subdivision– a starter home by metro Boston standards – as part of this research.
[69] Max Besbris, *Upsold: Real Estate Agents, Prices, and Neighborhood Inequality* (Chicago, IL: University of Chicago Press, 2020), https://press.uchicago.edu/ucp/books/book/chicago/U/bo56555421.html.
[70] Muro et al., "Reconnecting Massachusetts Gateway Cities."
[71] Fry, "Amid a Pandemic and a Recession, Americans Go on a near-Record Homebuying Spree"; Jerusalem Demsas, "COVID-19 Caused a Recession. So Why Did the Housing Market Boom?," *Vox*, February 5, 2021, https://www.vox.com/22264268/covid-19-housing-insecurity-housing-prices-mortgage-rates-pandemic-zoning-supply-demand.
[72] We looked at the pandemic spike as a type of "treatment effect," and contrasted patterns immediately before the pandemic to the pandemic period. This is not a quasi-experimental design such as Difference-In-Difference.
[73] Massachusetts Housing Partnership, "ONE+Boston," 2024, https://www.mhp.net/one-mortgage/one-plus-boston.
[74] Joshua L. Farrell, "Community Development: The FHA's Origins: How Its Valuation Method Fostered Racial Segregation and Suburban Sprawl," *Journal of Affordable Housing & Community Development Law* 11, no. 4 (2002): 374–89; Calvin Bradford, "Financing Home Ownership: The Federal Role In Neighborhood Decline," in *Politics and Government* (Routledge, 1996).
[75] There are many indexes of segregation, with the dissimilarity index simply being one of them focused on evenness across places. Other indexes focus on features such as exposure to majority members, clustering, and centralization. Some indexes also look at segregation between more than two groups. See Douglas S. Massey and Nancy A. Denton, "The Dimensions of Residential Segregation," *Social Forces* 67, no. 2 (1988): 281–315, https://doi.org/10.2307/2579183; Sean F. Reardon and Glenn Firebaugh, "Measures of Multigroup Segregation," *Sociological Methodology* 32, no. 1 (2002): 33–67, https://doi.org/10.1111/1467-9531.00110.
[76] Home price increases during the pandemic further limited where FHA buyers could afford to buy and likely contributed to segregating them. Nonetheless, it must be noted that FHA adjusts maximum loan amounts every year (and upwardly adjusted them during this period).
[77] Jacob William Faber, "Segregation and the Geography of Creditworthiness: Racial Inequality in a Recovered Mortgage Market," *Housing Policy Debate* 28, no. 2 (March 4, 2018): 215–47, https://doi.org/10.1080/10511482.2017.1341944; Tyler Haupert, "The Racial Landscape of Fintech Mortgage Lending," *Housing Policy Debate* 32, no. 2 (March 4, 2022): 337–68, https://doi.org/10.1080/10511482.2020.1825010.
[78] Nelson, "FHA and the Dual Mortgage Delivery Sytem in Philadelphia."
[79] Goodman and Ratcliffe, "The Tight Housing Market Boxes Out Government-Insured Borrowers, Widening Homeownership Gaps."
[80] For more details including a map of places with source-of-income protections across the country, see Brian Knudsen, "Expanded Protections for Families with Housing Choice Vouchers" (Washington DC: Poverty & Race Research Action Council, September 30, 2022), https://www.prrac.org/expanded-protections-for-families-with-housing-choice-vouchers-september-2022/.

[81] Rosen, *The Voucher Promise*; Daniel Teles and Yipeng Su, "Source of Income Protections and Access to Low-Poverty Neighborhoods"; Marr, "Mitigating Apprehension about Section 8 Vouchers."
[82] Tighe, Hatch, and Mead, "Source of Income Discrimination and Fair Housing Policy."
[83] Maria Krysan and Kyle Crowder, *Cycle of Segregation: Social Processes and Residential Stratification* (New York: Russell Sage Foundation, 2017), https://www.russellsage.org/publications/cycle-segregation-0.
[84] Shares differed slightly across loan types, with 15 percent of conventional loans missing race, 12 percent of FHA loans, and 14 percent of VA loans.
[85] McCoy, "The Home Mortgage Disclosure Act."