



Out of the Red(lining): The Mortgage Market and the Racial Homeownership Gap

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Edenborn Cemetery, McClellandtown, PA



Until the 1950s, about 90 percent of all public cemeteries in the U.S. employed a variety of racial restrictions

Overview

1. Background
2. The racial wealth and homeownership gaps
3. Redlining and racial discrimination: Then and now
4. Mortgage access for Black and Latinx homebuyers: the 3 C's of mortgage underwriting
 - ▶ Capacity
 - ▶ Credit History
 - ▶ Collateral
5. Potential solutions
6. Discussion

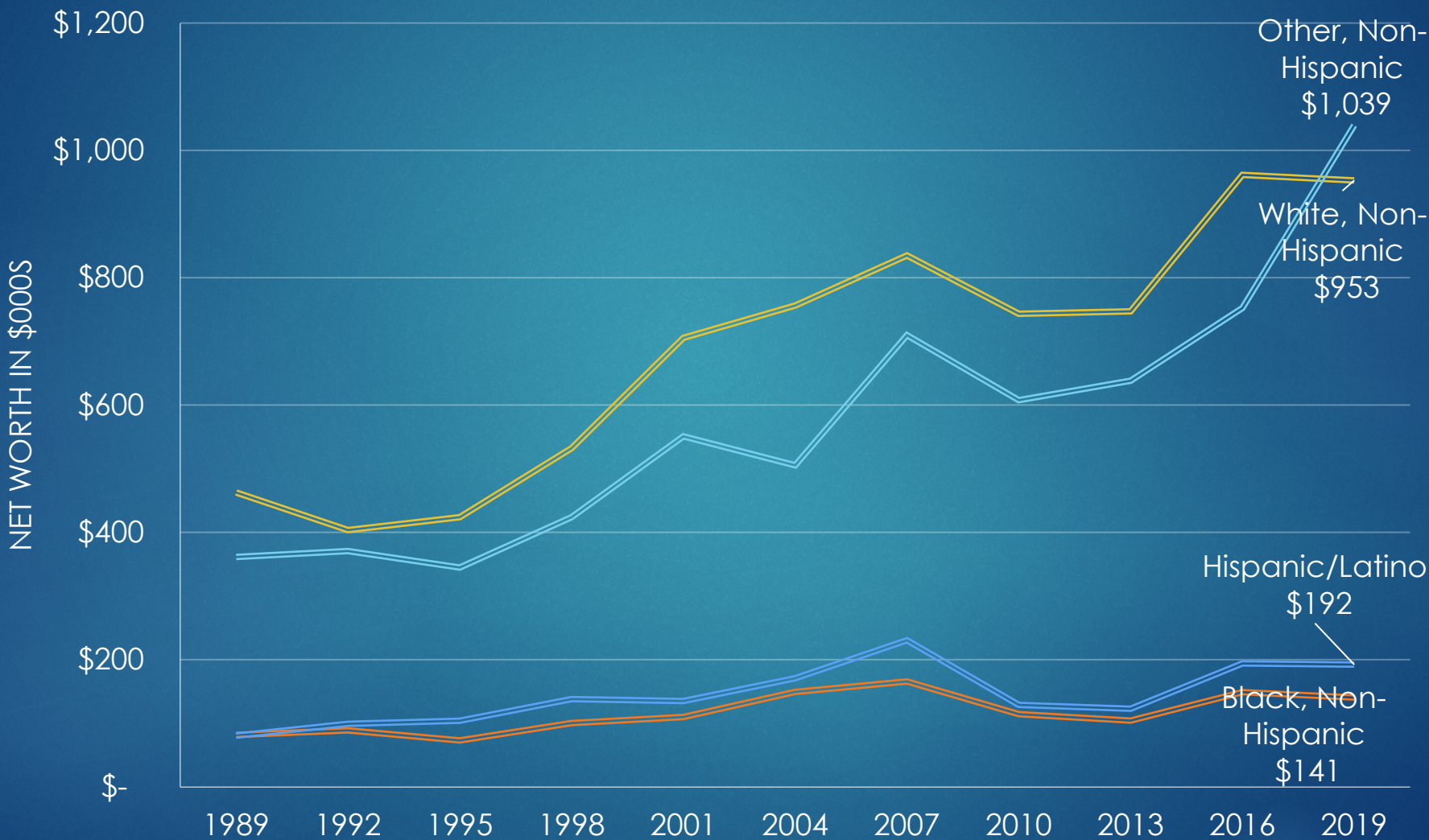
Examples: Trident, <https://youtu.be/nZrnGfFBkDI>

Wells Fargo, https://www.youtube.com/watch?v=25OzVW3-I_o

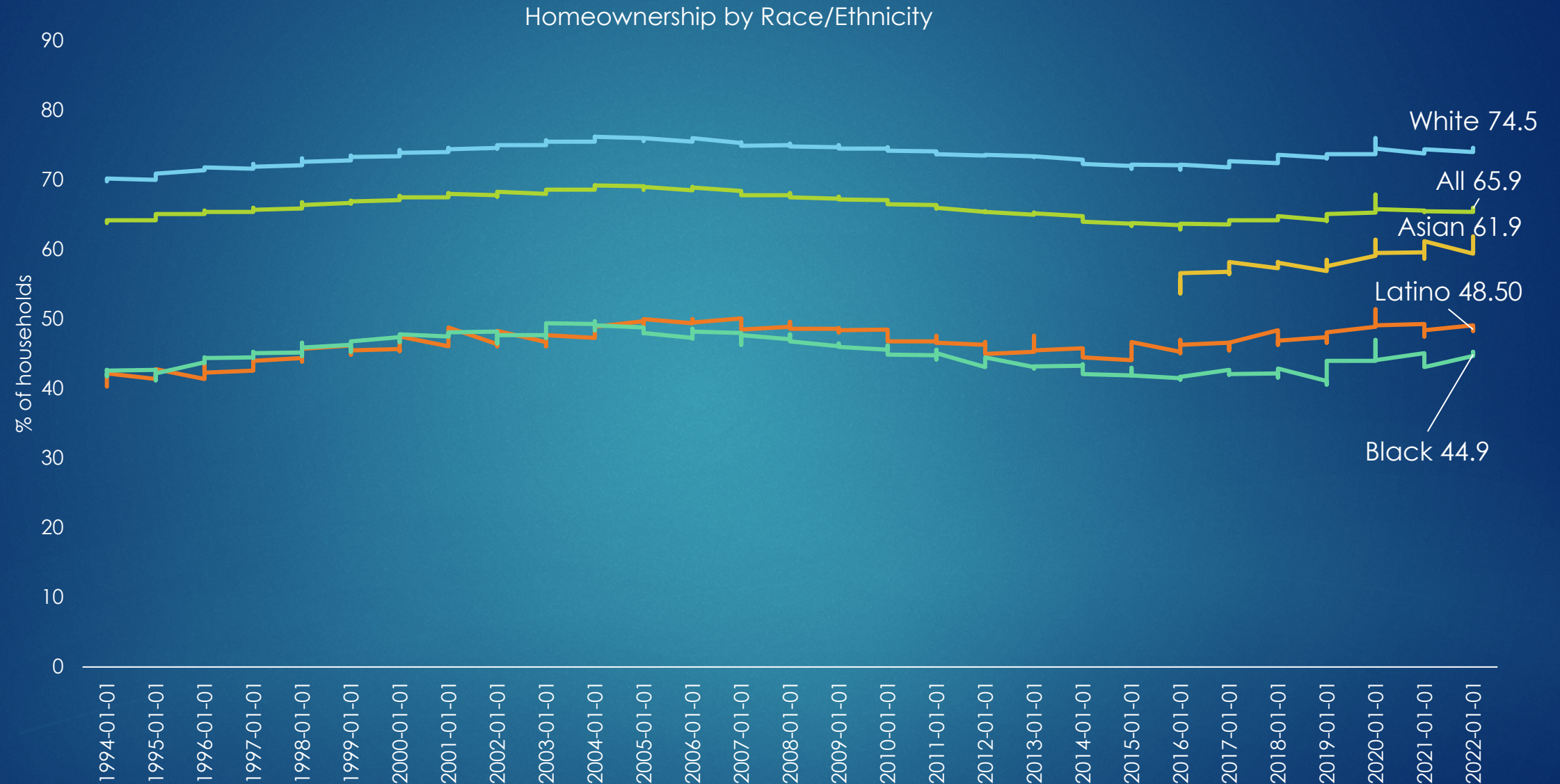
Racial Wealth Disparities

MEDIAN NET WORTH BY RACE/ETHNICITY

<https://www.federalreserve.gov/econres/notes/feds-notes/wealth-inequality-and-the-racial-wealth-gap-accessible-20211022.htm#fig1>



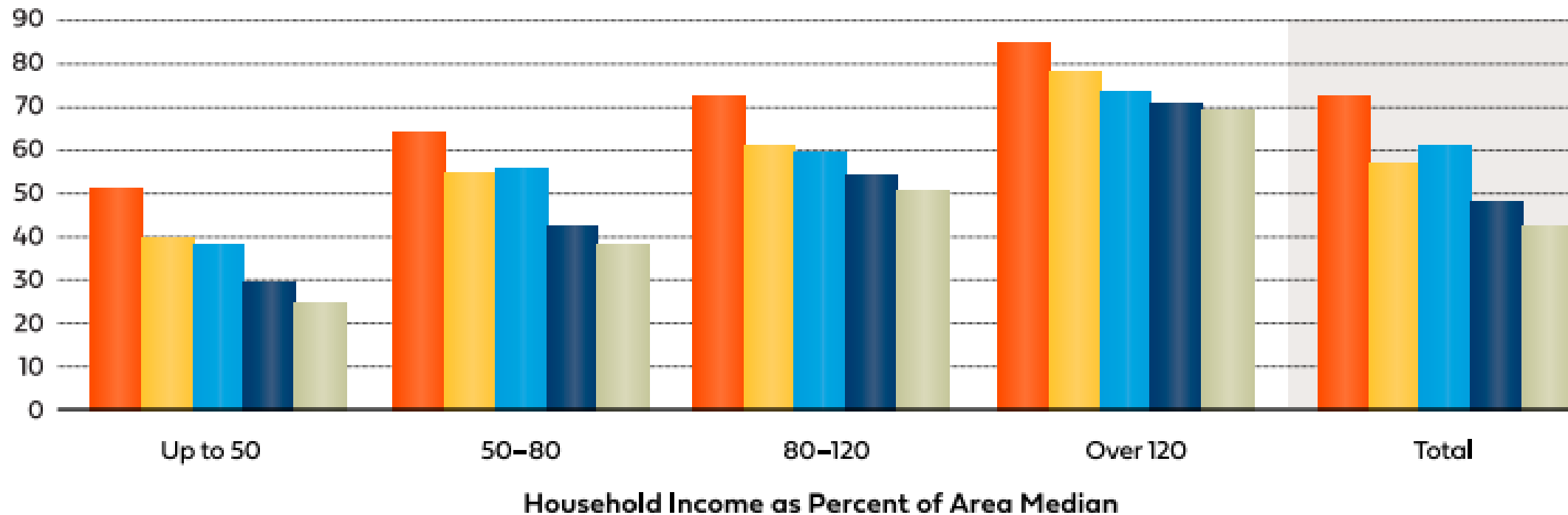
Racial Homeownership Gap



Racial Homeownership Gap

Regardless of Income, Households of Color Have Lower Homeownership Rates than White Households

Homeownership Rate (Percent)



Race/Ethnicity White Native American Asian Hispanic Black

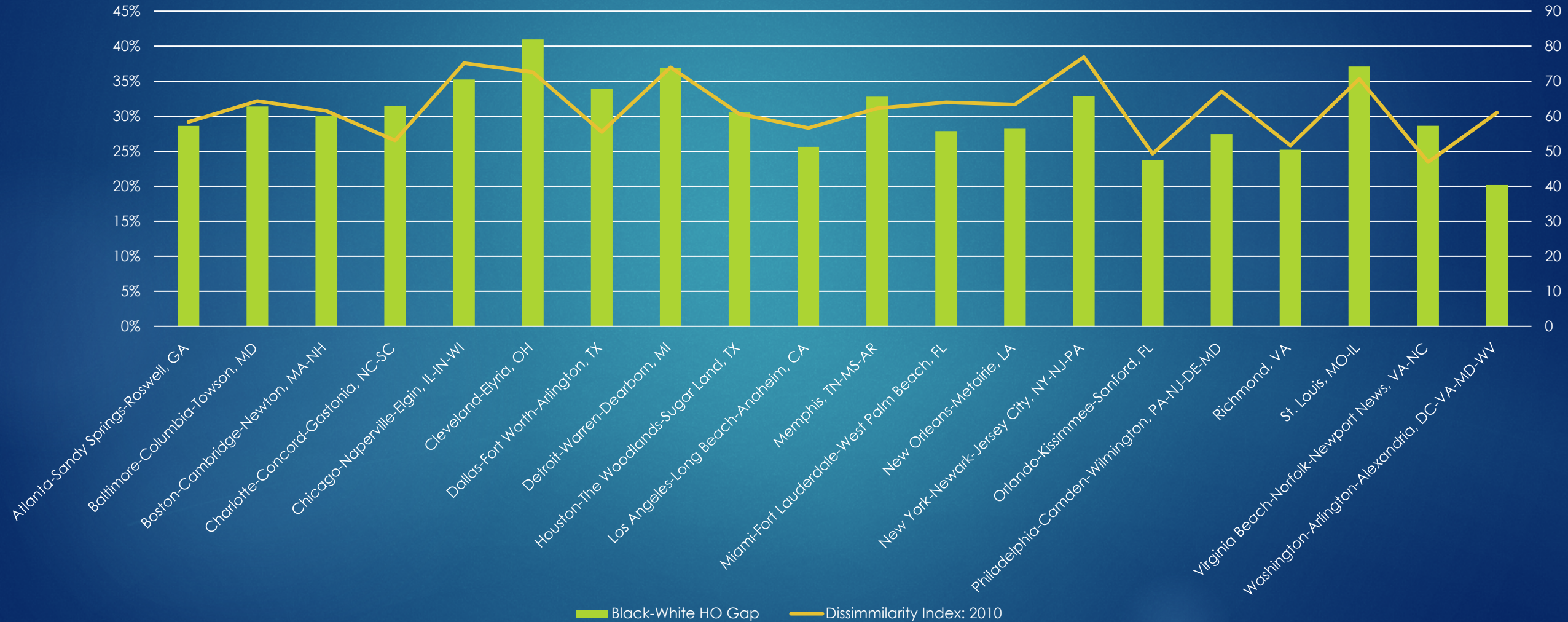
Notes: White, Native American, Asian, and Black householders are non-Hispanic. Hispanic householders may be of any race(s).

Source: JCHS tabulations of US Census Bureau, 2019 American Community Survey 1-Year Estimates.

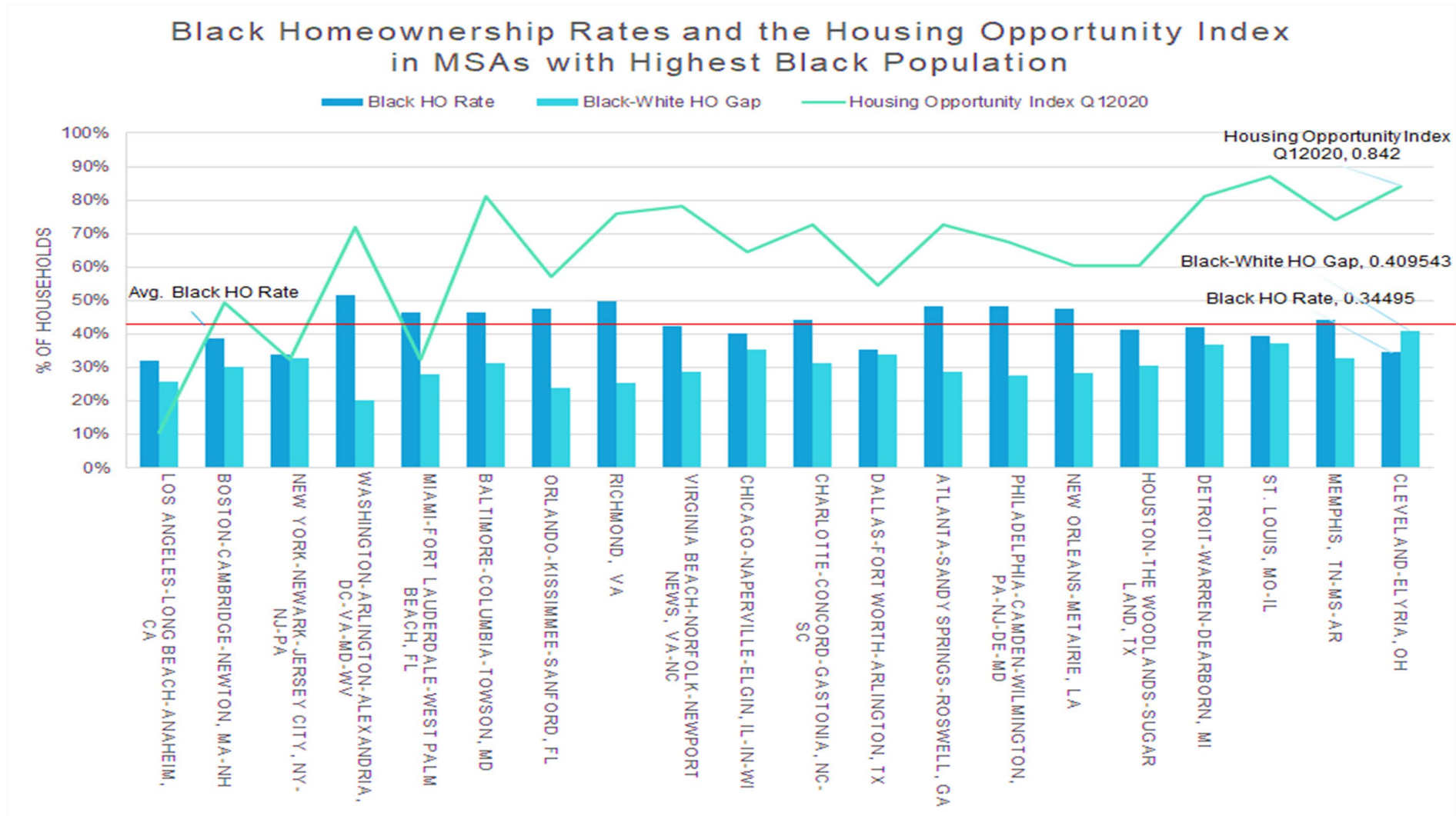
Black-White homeownership gap is higher in more segregated areas



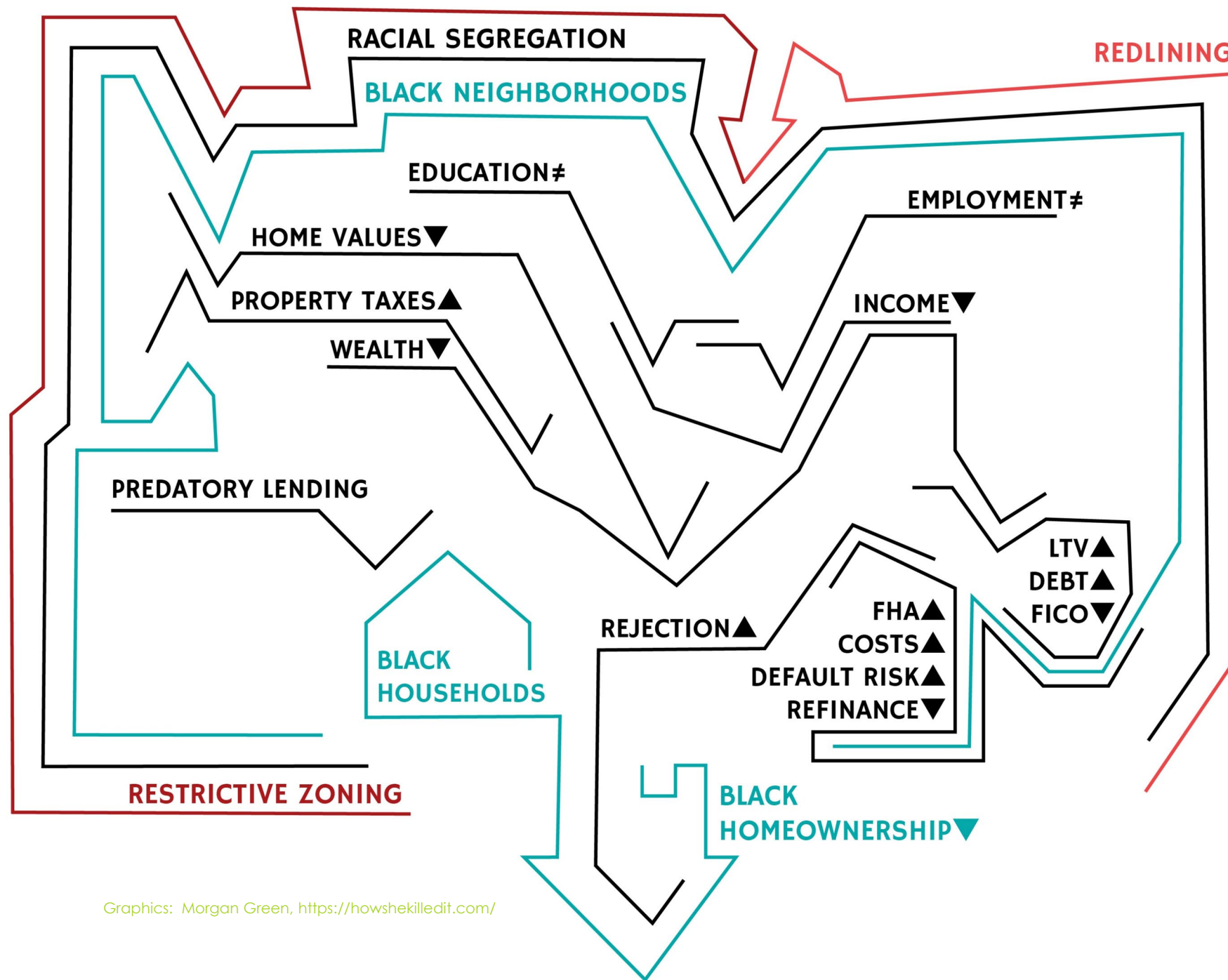
Black-White Homeownership Gap and Segregation in MSAs with Highest Black Population
($r=0.4189$)



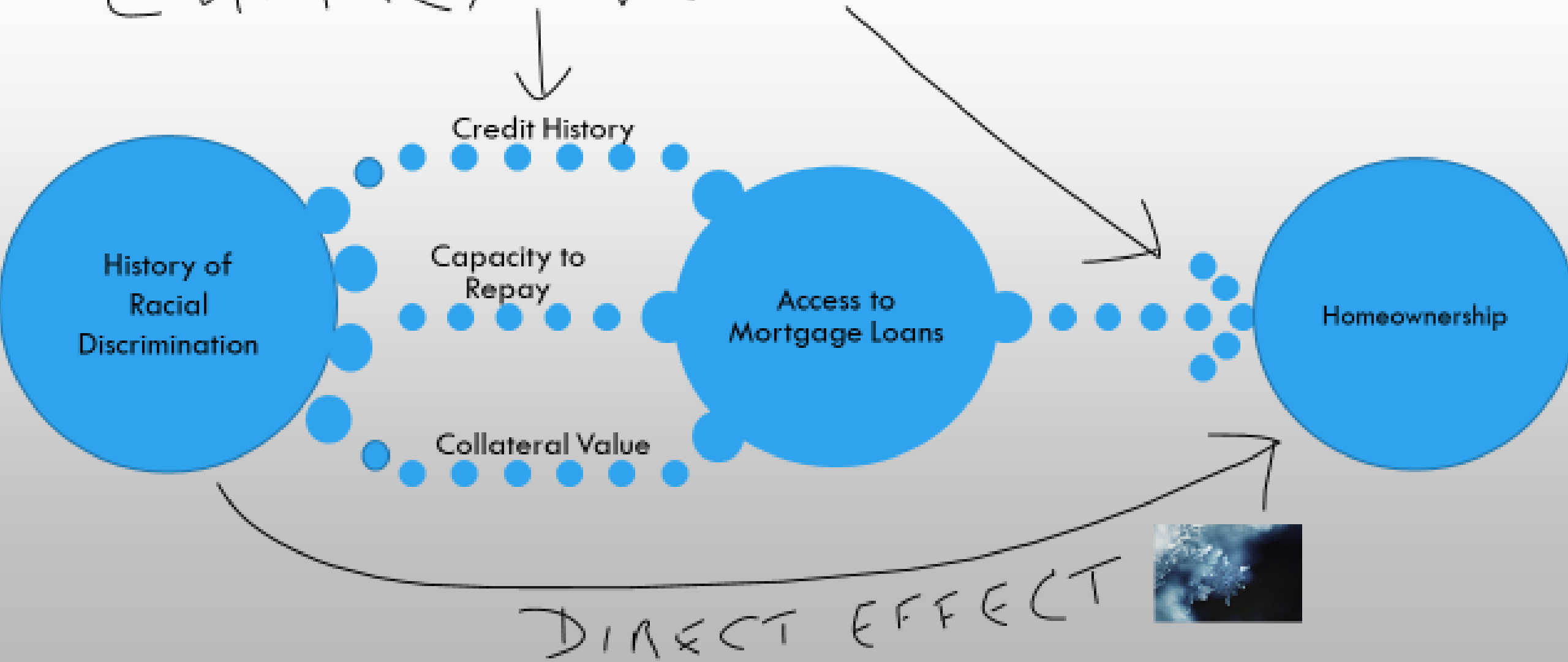
Black-White homeownership gap is greatest in some of the most affordable areas



Systemic racism,
cumulative
disadvantage
and
homeownership



CUMULATIVE DISADVANTAGE

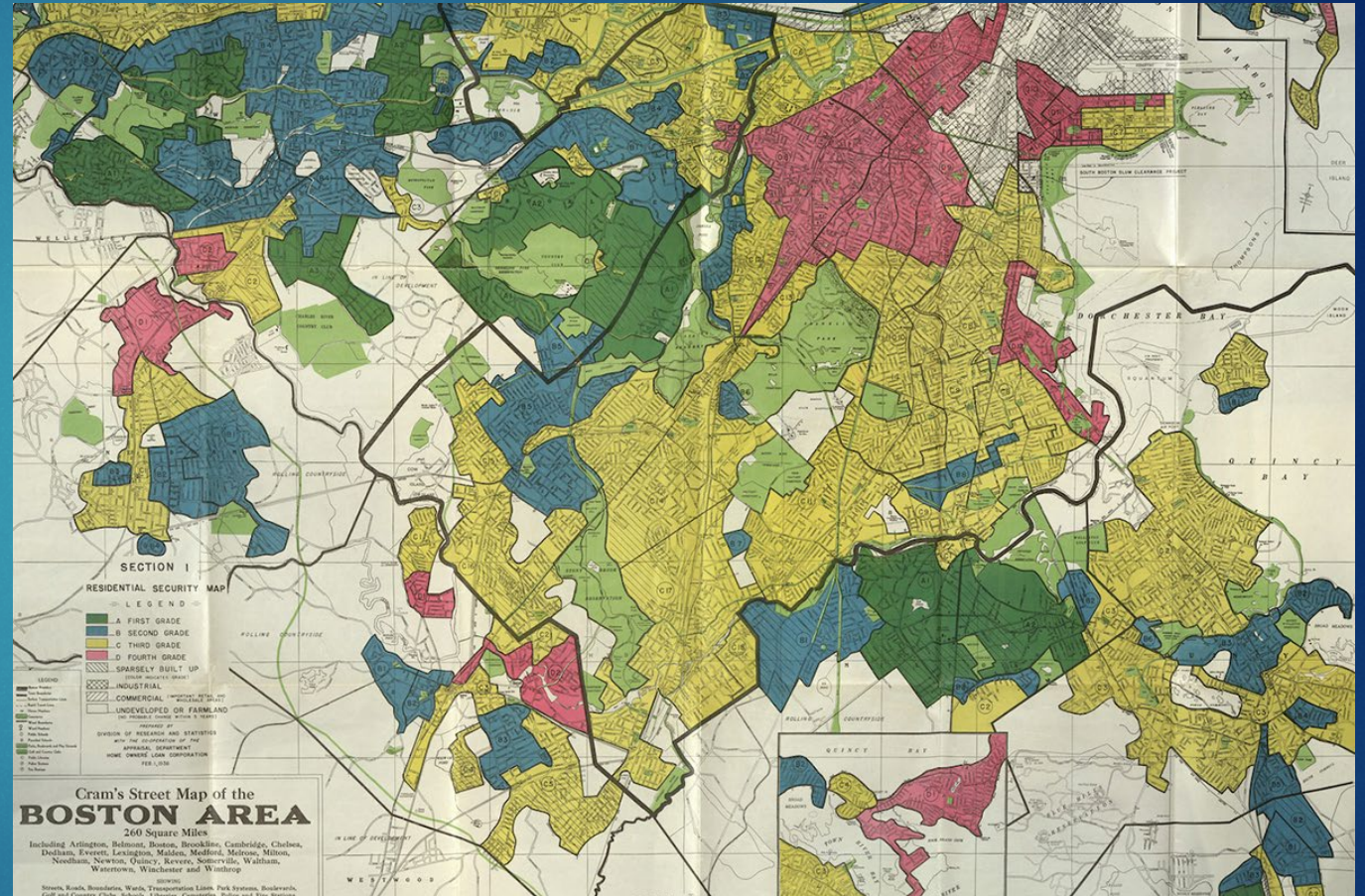


Redlining: Selected guidance from the 1938 FHA Underwriting Guide

- ▶ 1847-50. Racial Occupancy Designation. *This will be a letter indicating predominating racial characteristics, as follows : W-White M-Mixed F-Foreign N-Negro*
- ▶ 937... *Areas surrounding a location are investigated to determine whether incompatible racial and social groups are present, for the purpose of making a prediction regarding the probability of the location being invaded by such groups. If a neighborhood is to retain stability, it is necessary that properties shall continue to be occupied by the same social and racial classes. A change in social or racial occupancy generally contributes to instability and a decline in values*
- ▶ 973. ...*Families enjoy social relationships with other families whose education, abilities, mode of living, and racial characteristics are similar to their own. ...*
- ▶ 980 (3). *Recorded restrictive covenants should strengthen and supplement zoning ordinances and to be really effective should include the provisions listed below*
 - ▶ *G. Prohibition of the occupancy of properties except by the race for which they are intended*
- ▶ 1032. *The borrower who acquires property for occupancy in a location inhabited by a class or race of people that may impair his interest in the property-and thereby affect his motivation should be ascribed a lower rating in this feature to reflect the diminishing importance of the property to the borrower.*

Redlining

- ▶ The Home Owners Loan Corporation (HOLC) was established during the New Deal (late 1930s) to stabilize the mortgage market
- ▶ The HOLC maps institutionalized the practice known as “redlining” which became standard practice in government and private mortgage lending (Massey and Denton, 1993)
- ▶ HOLC local area maps graded neighborhoods based on risk-related factors, i.e., age and condition of housing, access to transportation, and other amenities, the socioeconomic status and **racial and ethnic composition of residents**
- ▶ Neighborhoods assigned color-coded risk ratings, with green indicating ‘best’, blue for ‘Still Desirable,’ yellow for ‘Definitely Declining,’ and red for ‘Hazardous’



https://cdn1.sph.harvard.edu/wp-content/uploads/sites/21/2022/01/holc-scan_boston_large_1200x800.jpg

Effects of Redlining - Socioeconomic and Public Health

- ▶past HOLC grades and segregation factors explain
 - ▶ **25 percent of the variation in poverty rates**
 - ▶ **23 percent of economic inequality**
 - ▶ **38 percent of SNAP usage** (food assistance for low-income families)
 - ▶ **53 percent of the difference in median household income from neighborhood to neighborhood**; (Townsley et al., 2021)
 - ▶ approximately 5 year **reduction in community statistical area life expectancy** (Huang & Sehgal 2022)
 - ▶ **socioeconomic development of child residents** (Hartley 2022)
 - ▶ **preterm births** in New York City and late-stage cancer diagnoses in Massachusetts (Krieger, et al. 2020a; 2020b)
 - ▶ patterns of **elevated land surface temperatures** by as much as 7 °C;
 - ▶ less coverage by tree canopy and more coverage asphalt & concrete in the present decade (Hoffman, et al. 2020)

Effects of Redlining – Housing Market Evidence

- ▶ ...**areas** that were the lower graded side of HOLC boundaries in the 1930s have experienced
 - ▶ a **marked increase in racial segregation** in subsequent decades
 - ▶ a long-run **decline in home ownership, house values, and credit scores** along the lower graded side of HOLC borders that persists today (Aronson, et al. 2017)
 - ▶ ...**a 5% decrease in 1990 house prices**, not driven by the physical features of cities, particularly strong in cities with high demand during the period when redlining was practiced
 - ▶ **a 5-7% increase in vacant houses and a 3% decrease in owner-occupation**, suggesting negative externalities associated with these neighborhood characteristics (Appel 2016)
 - ▶ greater likelihood of **automated valuation model bias** (house price > AVM estimate) (Neal, Perry, Zhu 2022)

Redlining today

- ▶ Federal laws that prohibit discrimination and redlining

- ▶ Fair Housing Act

- ▶ Disparate treatment

- ▶ Disparate impact

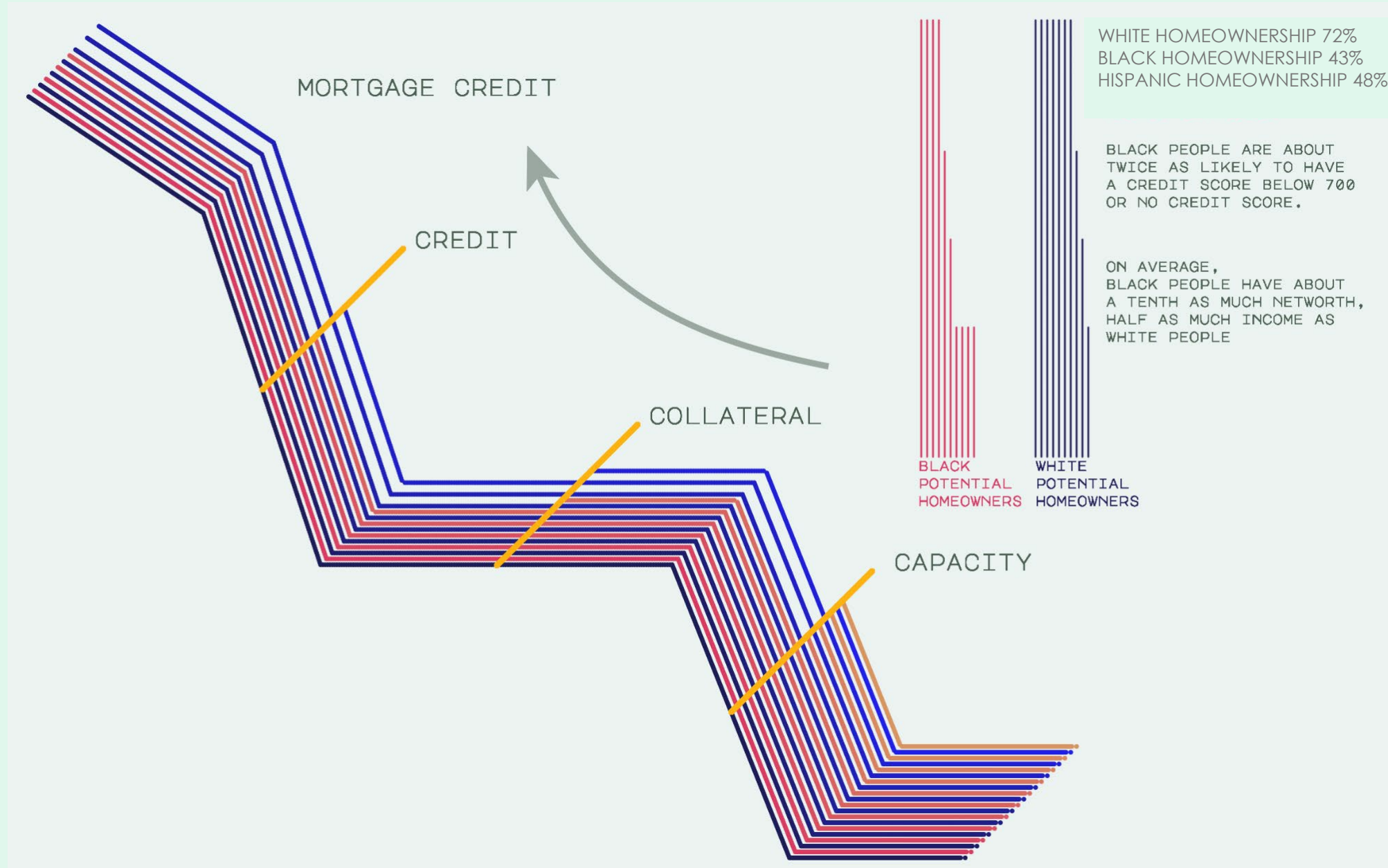
- ▶ Equal Credit Opportunity Act

- ▶ Community Reinvestment Act

- ▶ Home Mortgage Disclosure Act

- ▶ Facebook, algorithmic bias
https://www.youtube.com/watch?v=L_I49UNyOms

Race, 3 C's of underwriting, and the homeownership gap



Capacity and credit history for Black homebuyers

Average Black new home value \$215,000	Average White new home value \$255,000
FHA/VA loan	Conventional loan
DTI 41%	DTI 37%
FICO 626	FICO 751
LTV 96.5%	LTV 90%
Denials 17.4%	Denials 7.9%

DTI=debt-to-income ratio
LTV=loan-to-value ratio
FICO=credit score
Denials= % of loan applications rejected

Black and Latinx renter households are more likely to face liquidity and credit constraints

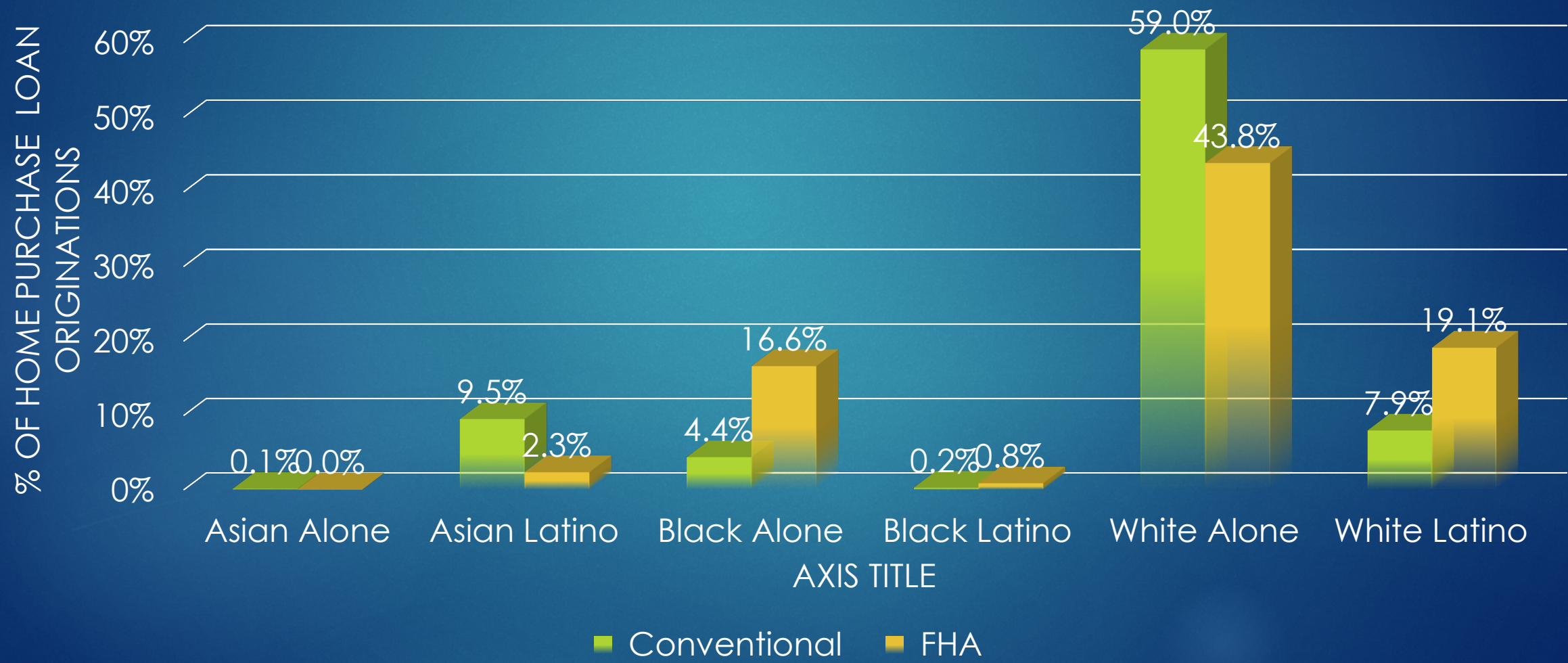
Percent of Renters 25 to 65 Years Old Who Are Qualified to Buy a \$250,000 Home: Based on Available Assets

	Meets Debt to Income Requirement	Meets Asset Requirement	Meets Credit Requirement	Meets All Requirements
Race/Ethnicity				(Qualified)
White non-Hispanic	49.00%	20.30%	84.80%	15.90%
Black/African Am.	31.50%	6.40%	84.20%	4.30%
Hispanic	33.50%	5.40%	88.20%	4.00%
Other	51.00%	25.60%	90.80%	20.40%
All Renters 25 - 65 Yrs.	2.70%	15.20%	85.50%	11.70%

Source: Survey of Consumer Finances data tabulations

Black and Latinx borrowers are more likely to obtain FHA and VA insured loans

BLACK AND LATINX CONVENTIONAL VS. FHA MORTGAGE LENDING
SOURCE: 2021 HMDA DATA



Black and Latinx people pay more for homeownership

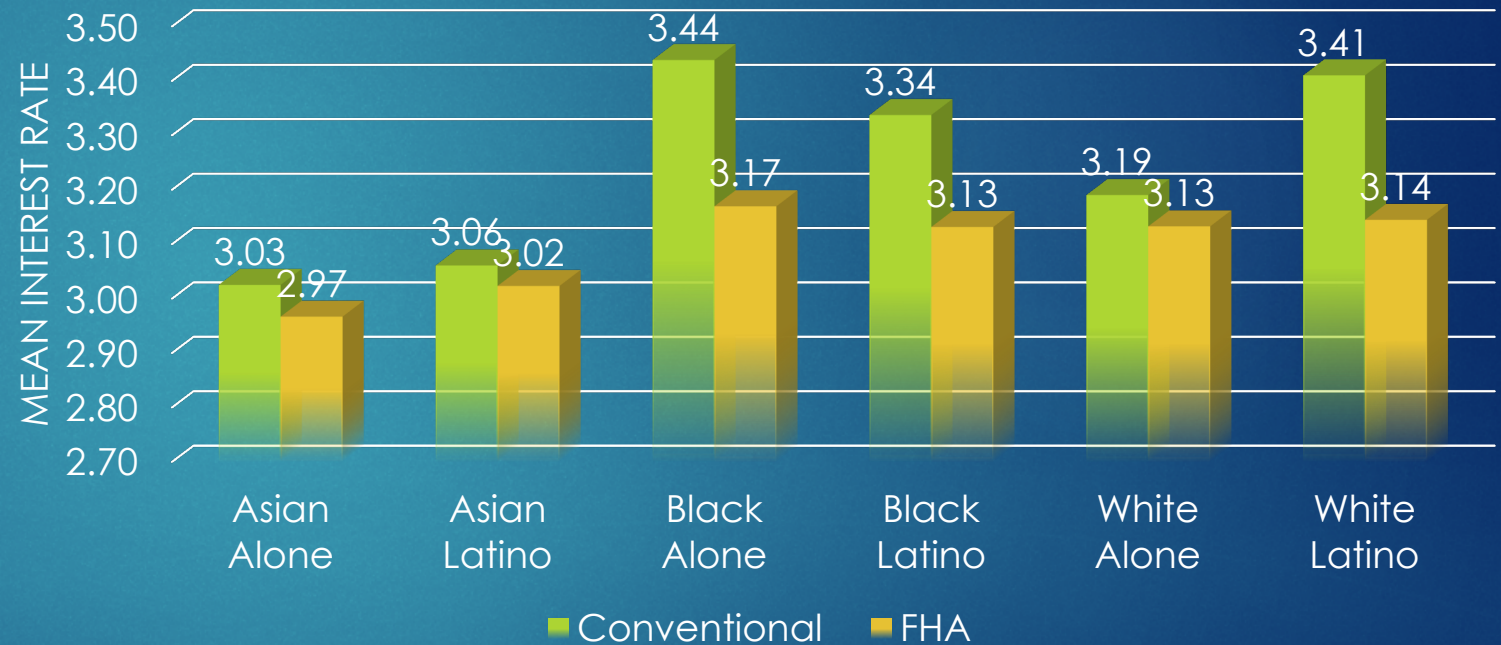
Per Year, Relative to White borrowers: Black Borrowers Incur:

- \$743 More in Interest
- \$550 More in Insurance Premiums
- \$390 More in Property Taxes

\$13,464 Over the Life of the Loan

\$67,320 In Lost Retirement Savings

MEAN MORTGAGE INTEREST RATES
SOURCE: 2021 HMDA DATA



Potential Solution: Loan pricing changes

- 'For conventional whole loan and MBS transactions, Fannie Mae may apply one or more loan-level price adjustments (LLPA) that are charged at loan delivery based on certain loan-level credit risk characteristics, such as credit score, loan purpose, occupancy, number of units, and product type.'
- Freddie Mac equivalent is known as a Credit Fee in Price
- FHFA's recent LLPA changes make permanent reduced or eliminated fees for first-time homebuyers and those with low and moderate incomes
- Recent changes incorporate high DTI

Purchase Money Loans – LLPA by Credit Score/LTV Ratio										
Credit Score	LTV Range									
	Applicable for all loans with terms greater than 15 years									
	≤ 30.00%	30.01 – 60.00%	60.01 – 70.00%	70.01 – 75.00%	75.01 – 80.00%	80.01 – 85.00%	85.01 – 90.00%	90.01 – 95.00%	>95.00%	SFC
≥ 780	0.000%	0.000%	0.000%	0.000%	0.375%	0.375%	0.250%	0.250%	0.125%	N/A
760 – 779	0.000%	0.000%	0.000%	0.250%	0.625%	0.625%	0.500%	0.500%	0.250%	N/A
740 – 759	0.000%	0.000%	0.125%	0.375%	0.875%	1.000%	0.750%	0.625%	0.500%	N/A
720 – 739	0.000%	0.000%	0.250%	0.750%	1.250%	1.250%	1.000%	0.875%	0.750%	N/A
700 – 719	0.000%	0.000%	0.375%	0.875%	1.375%	1.500%	1.250%	1.125%	0.875%	N/A
680 – 699	0.000%	0.000%	0.625%	1.125%	1.750%	1.875%	1.500%	1.375%	1.125%	N/A
660 – 679	0.000%	0.000%	0.750%	1.375%	1.875%	2.125%	1.750%	1.625%	1.250%	N/A
640 – 659	0.000%	0.000%	1.125%	1.500%	2.250%	2.500%	2.000%	1.875%	1.500%	N/A
≤ 639 ¹	0.000%	0.125%	1.500%	2.125%	2.750%	2.875%	2.625%	2.250%	1.750%	N/A

Additional LLPAs by Loan Attribute Applicable to Purchase Money Loans										
Loan Feature	LTV Range									
	Applicable for all loans									
	≤ 30.00%	30.01 – 60.00%	60.01 – 70.00%	70.01 – 75.00%	75.01 – 80.00%	80.01 – 85.00%	85.01 – 90.00%	90.01 – 95.00%	>95.00%	SFC
Adjustable-rate mortgage	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.250%	0.250%	N/A
Condo ²	0.000%	0.000%	0.125%	0.125%	0.750%	0.750%	0.750%	0.750%	0.750%	N/A
Investment property	1.125%	1.125%	1.625%	2.125%	3.375%	4.125%	4.125%	4.125%	4.125%	N/A
Second home	1.125%	1.125%	1.625%	2.125%	3.375%	4.125%	4.125%	4.125%	4.125%	N/A
Manufactured home ³	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	235
Two- to four-unit property	0.000%	0.000%	0.375%	0.375%	0.625%	0.625%	0.625%	0.625%	0.625%	N/A
High-balance fixed-rate	0.500%	0.500%	0.750%	0.750%	1.000%	1.000%	1.000%	1.000%	1.000%	808
High-balance ARM	1.250%	1.250%	1.500%	1.500%	2.500%	2.500%	2.500%	2.750%	2.750%	808
Subordinate financing ⁴	0.625%	0.625%	0.625%	0.875%	1.125%	1.125%	1.125%	1.875%	1.875%	N/A
DTI Ratio > 40%	0.000%	0.000%	0.250%	0.250%	0.375%	0.375%	0.375%	0.375%	0.375%	N/A

2023 Fannie Mae. This Matrix is incorporated by reference into the *Selling Guide* and supersedes any earlier dated version of Matrix.

02.01.2023

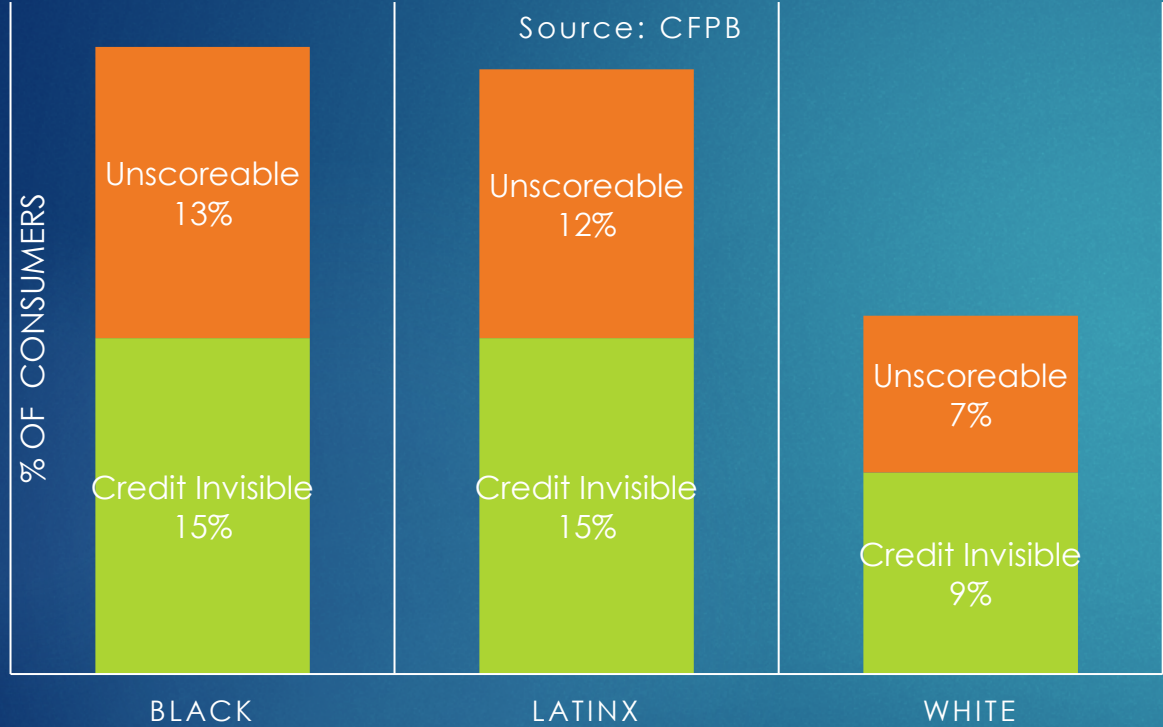
2 of 9

Sources: Fannie Mae (2021). When is a loan-level price adjustment required? Fannie Mae *Selling Guide*, Sept. 1, <https://selling-guide.fanniemae.com/Selling-Guide/Selling-Securitizing-Delivering-Loans/Subpart-C1-General-Info-Execution-Options-Loan-Delivery/Chapter-C1-1-Execution-Options-Overview/1121260591/When-is-a-loan-level-price-adjustment-required.htm>

Credit history

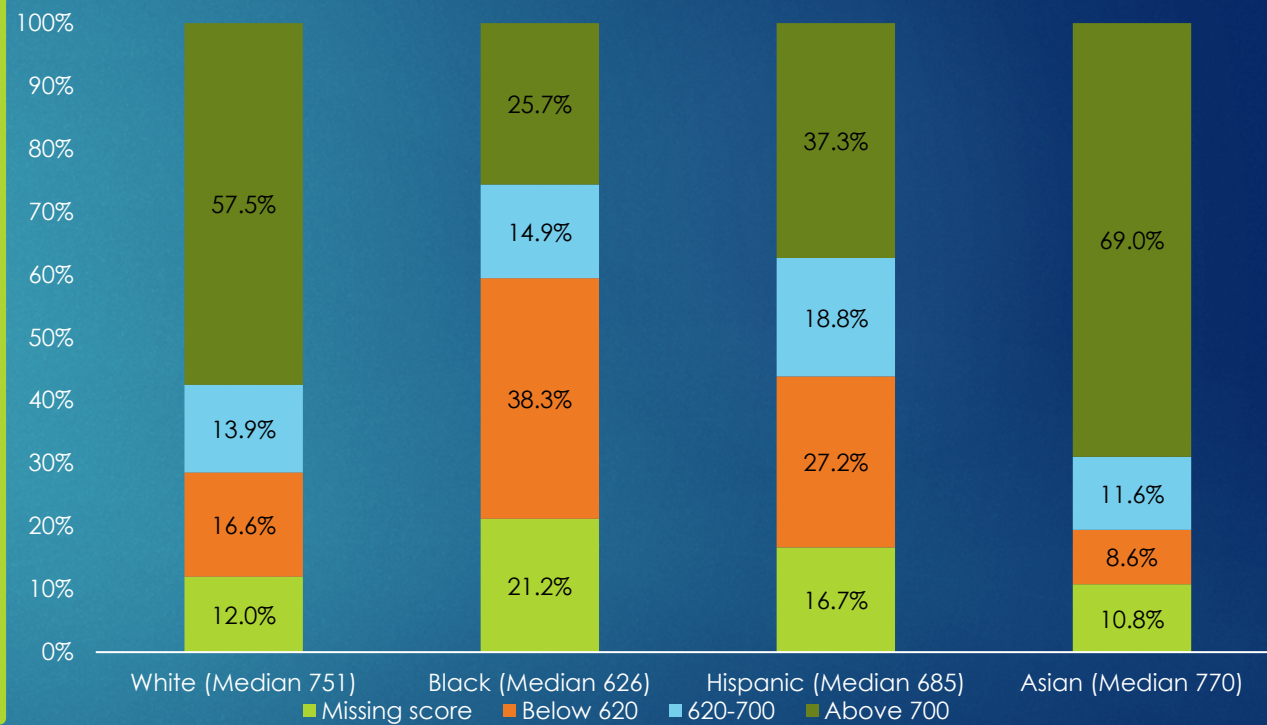
'Invisible' And 'Unscoreable' Credit Histories

Source: CFPB



FICO Score Distribution by Race/Ethnicity

Source: Freddie Mac 2016 Experian Data



Potential Solution: Utilities, Telecom and Rental Payments in Credit Scores

- ▶ “While historical experience and current challenges suggest that UTR data is not a panacea, with thoughtful development, it has the potential to benefit a considerable number of consumers.” (Cochran, et al.)
- ▶ FHFA ANNOUNCES INCLUSION OF RENTAL PAYMENT HISTORY IN FANNIE MAE’S UNDERWRITING PROCESS, AUG. 11, 2021
- ▶ FHFA ANNOUNCES VALIDATION AND APPROVAL OF FICO 10T AND VANTAGESCORE 4.0 CREDIT SCORE MODELS, Oct. 24, 2022
 - ▶ More Inclusive Credit Scores: both FICO 10T and VantageScore 4.0 include new payment history information such as rent, utilities, and telecom payments when available

Sources

- Cochran, Stegman & Foos 2021, https://www.urban.org/sites/default/files/publication/105282/utility-telecommunications-and-rental-data-in-underwriting-credit_1.pdf
- <https://www.fhfa.gov/Media/PublicAffairs/Documents/CS-Fact-Sheet-2022.pdf>
- <https://www.fhfa.gov/Media/PublicAffairs/Pages/FHFA-Announces-Inclusion-of-Rental-Payment-History-in-Fannie-Maes-Underwriting-Process.aspx>
- Shiba2020.com

Potential solution: Special Purpose Credit Programs

- ▶ The Equal Credit Opportunity Act of 1974 prohibits discrimination based on race, color, religion, national origin, sex, marital status, age, or receipt of public assistance exception for the provision of SPCPs
- ▶ Lenders must demonstrate that the program beneficiaries would not receive credit or would have to pay more for under traditional credit standards
- ▶ Place- or People-based SPCPs could offer down payment assistance, flexible underwriting standards, breaks on loan-level pricing, income restriction exceptions, home rehabilitation loans, streamlined refinance loans
- ▶ Bank of America to offer zero-down payment mortgages in certain Black and Hispanic communities, Sept. 1, 2022
 - ▶ Up to \$15k downpayment grant
 - ▶ No closing costs
 - ▶ No mortgage insurance
 - ▶ Prepurchase counseling requirement
 - ▶ Rates/fees?
- ▶ Wells Fargo responds, <https://www.youtube.com/watch?v=1jRzO1xuGIU>

Sources

<https://www.cnn.com/2022/09/01/homes/bank-of-america-zero-down-mortgages/index.html>

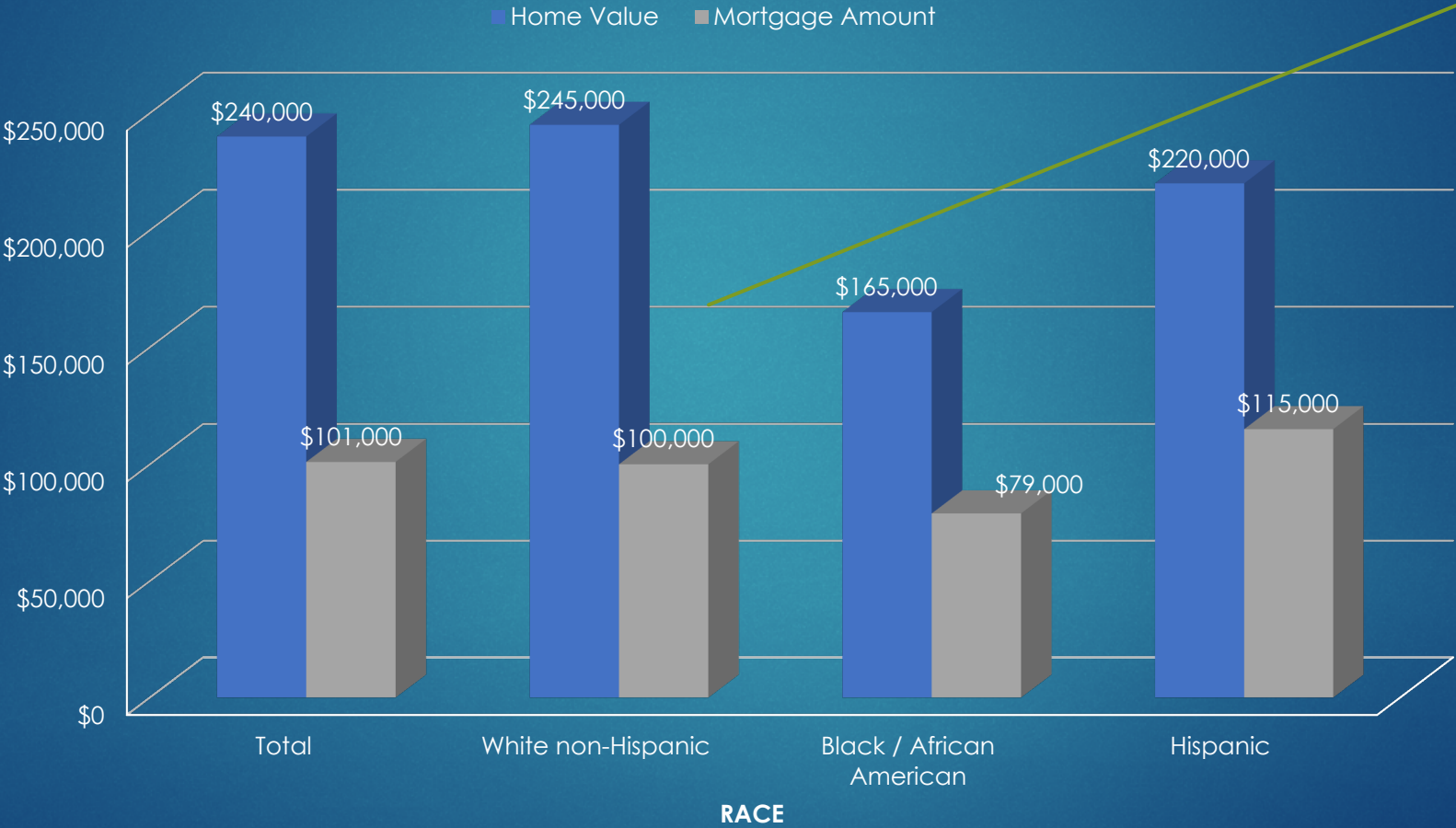
<https://www.urban.org/urban-wire/how-place-based-special-purpose-credit-programs-can-reduce-racial-homeownership-gap>

<https://www.urban.org/urban-wire/how-people-based-special-purpose-credit-programs-can-reduce-racial-homeownership-gap>

Collateral and Appraisal Bias

Home Equity 69 %
Higher for White
Households

Median Home Values and Outstanding Mortgage Amounts
Source: 2019 SCF



Racial bias in home valuations?

- ▶ Appraisal bias has emerged as one of the most controversial issues in the mortgage industry, E.g. CA lawsuit <https://www.youtube.com/watch?v=Gmsz3wqA-s8>
- ▶ Home valuation methods, i.e., appraisals, are critical to determining the market value of a home, borrower equity and default risk exposure
- ▶ Recent studies have documented systematic biases in traditional appraisals that result in lower values for Black and Hispanic homebuyers and neighborhoods
 - ▶ Appraisers' opinions of value are more likely to fall below the contract price in Black and Latino census tracts, and the extent of the gap increases as the percentage of Black or Latino people in the tract increases
 - ▶ Black and Latino applicants receive lower appraisal values than the contract price more often than White applicants
- ▶ Federal Interagency Task Force on Property Appraisal and Valuation Equity (PAVE) and the Appraisal Institute are working on solutions

Sources

- <https://www.brookings.edu/research/biased-appraisals-and-the-devaluation-of-housing-in-black-neighborhoods/>
- <https://www.freddiemac.com/research/insight/20210920-home-appraisals>

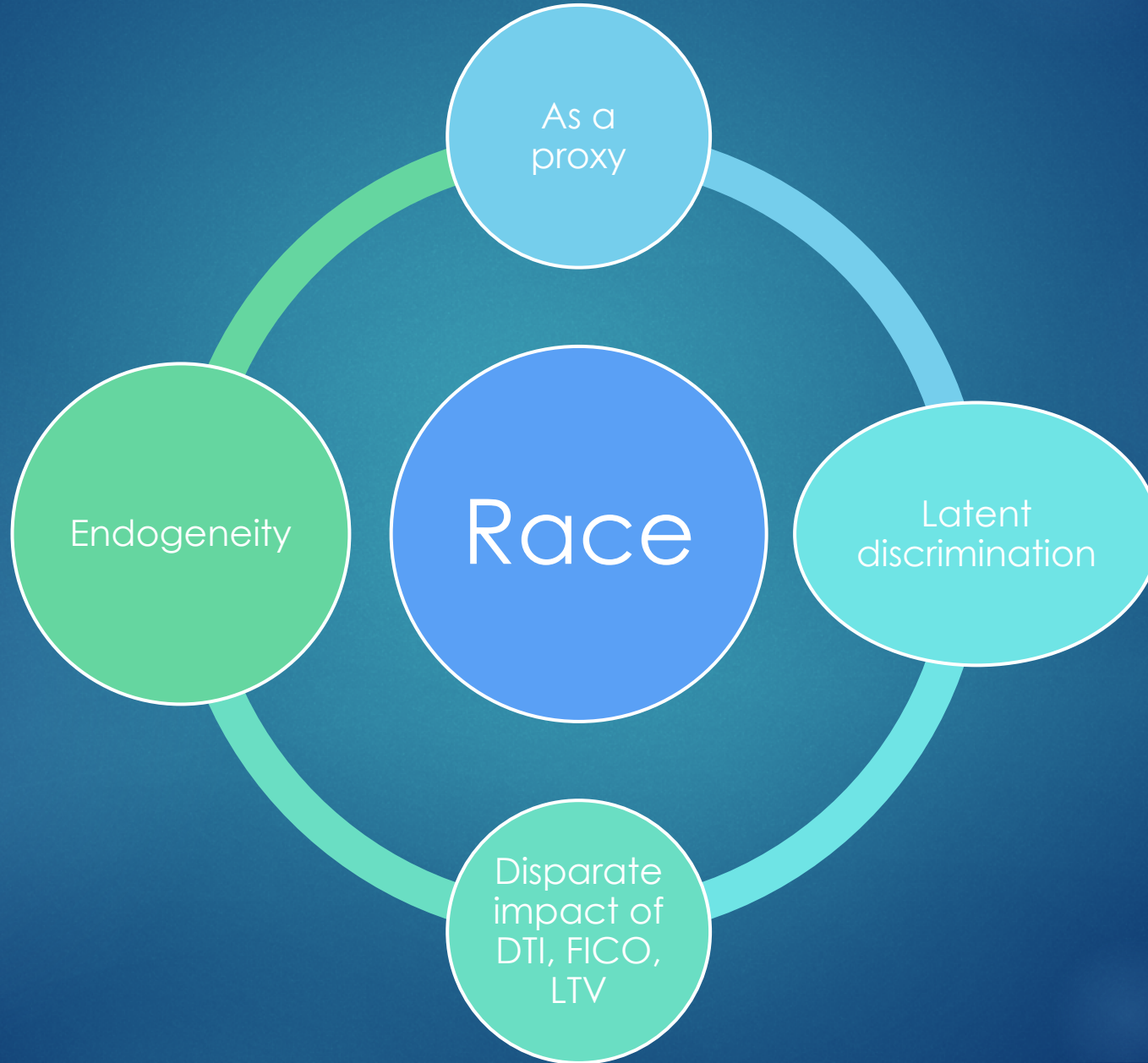
Potential Solution: AI/ML

	Redlined Areas		Entire MSA	
	Black Neighbor- hoods	White Neighbor- hoods	Black Neighbor- hoods	White Neighbor- hoods
Percentage magnitude of AVM error	43.1%	15.1%	31.1%	12.5%
Home Value	148,296	492,384	142,554	353,568
Property age	75.0	72.8	45.0	35.0
Standard deviation of neighborhood property ages	25.8	29.1	15.5	13.2
Percent deviation of neighborhood property values	53.8%	35.0%	42.0%	33.7%
Gentrified neighborhood	24.5%	9.5%	8.9%	2.2%
Share of neighborhood distressed home sales	16.4%	5.4%	14.4%	4.6%
Neighborhood median household income	32,216	90,961	48,501	95,472
Turnover rate at neighborhood level	15.9%	7.8%	9.4%	7.7%
Exterior Condition Rating (ECR)				
Good	7.2%	16.1%	8.7%	13.3%
Fair	53.0%	53.8%	44.8%	52.2%
Poor	39.8%	30.1%	46.5%	34.5%

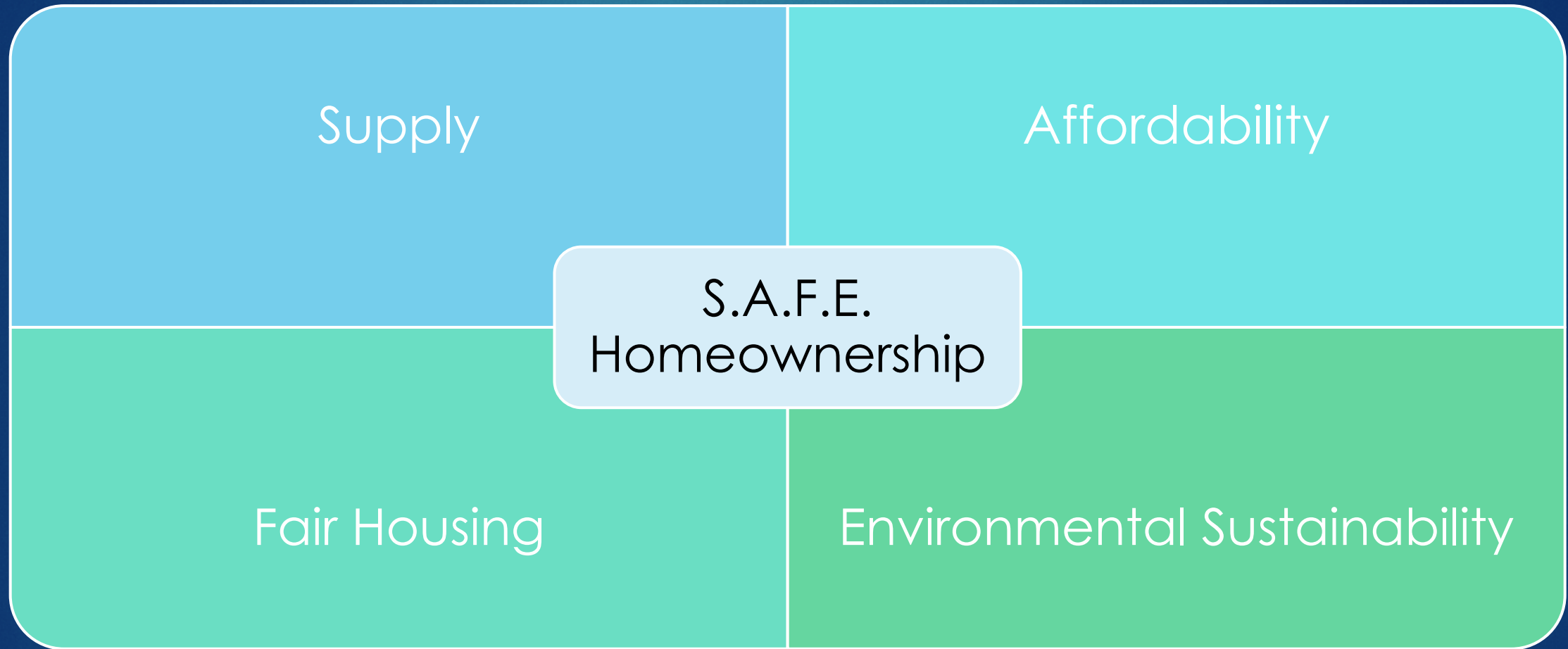
Source: Authors' calculations based on property records data from a major data vendor, 2014-18 American Community Survey, CAPE Analytics, and Mapping Inequality, the University of Richmond.

Notes: Redline areas are defined as areas with HOLC scores as Hazardous or Declining.

Revisiting mortgage models



Takeaways: Policy priorities



Thoughts? Thanks.

