

**IAOHRA CONFERENCE
2022**

MINING THE DATA: ALGORITHMIC BIAS IN HOUSING



@ItsLisaRice

Redfin settles 'online redlining' case with fair housing groups

Three Chicago-area groups are a part of a legal settlement with the online real estate marketplace over a service policy that allegedly helped to perpetuate existing patterns of segregation.

National Fair Housing Alliance, Redfin Agree To Settlement Expanding Access To Real Estate Services In Communities Of Color

Equality

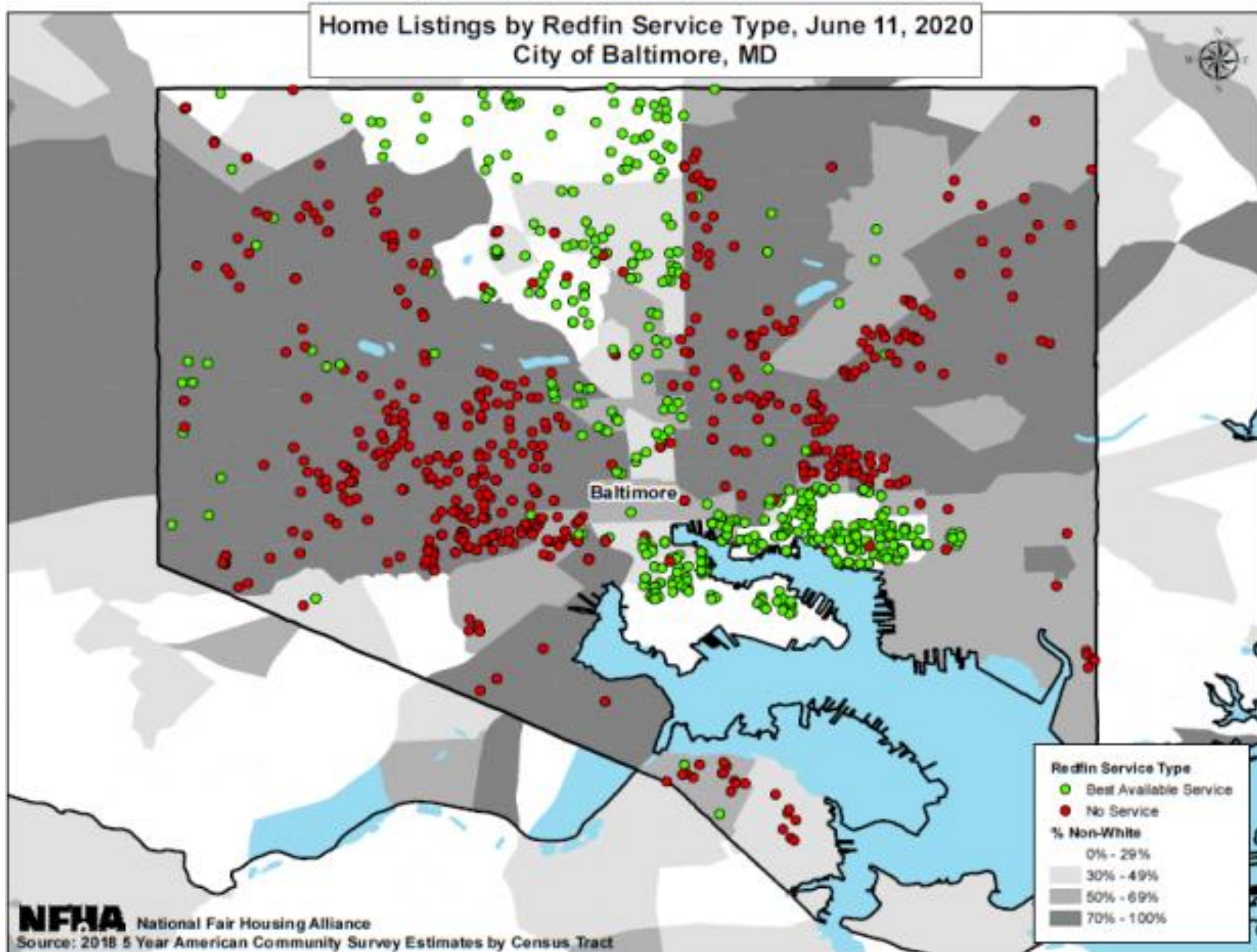
Redfin Settles Suit by Fair-Housing Groups Over 'Minimum Price Policy'

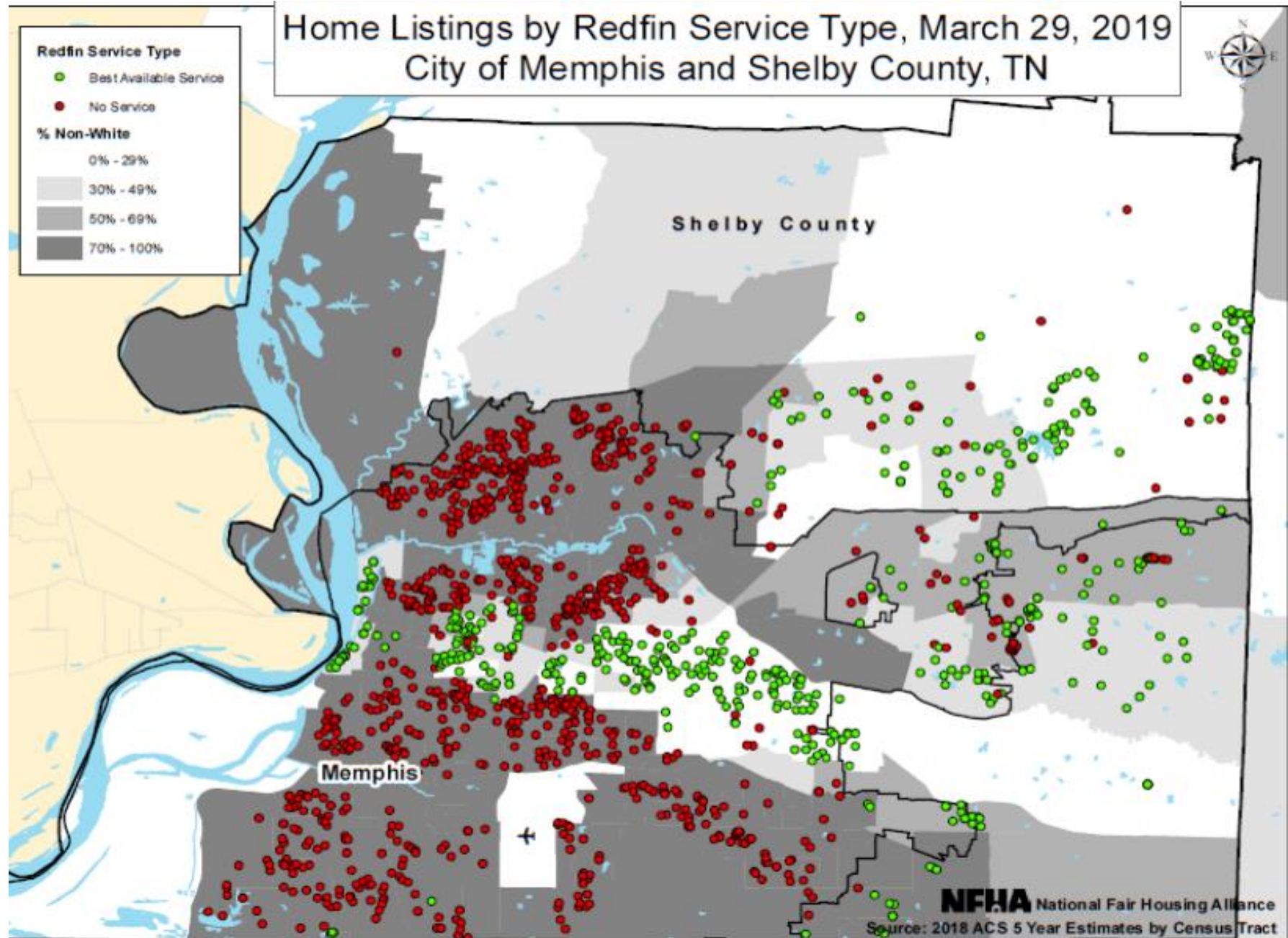
Redfin settles redlining lawsuit for \$4M

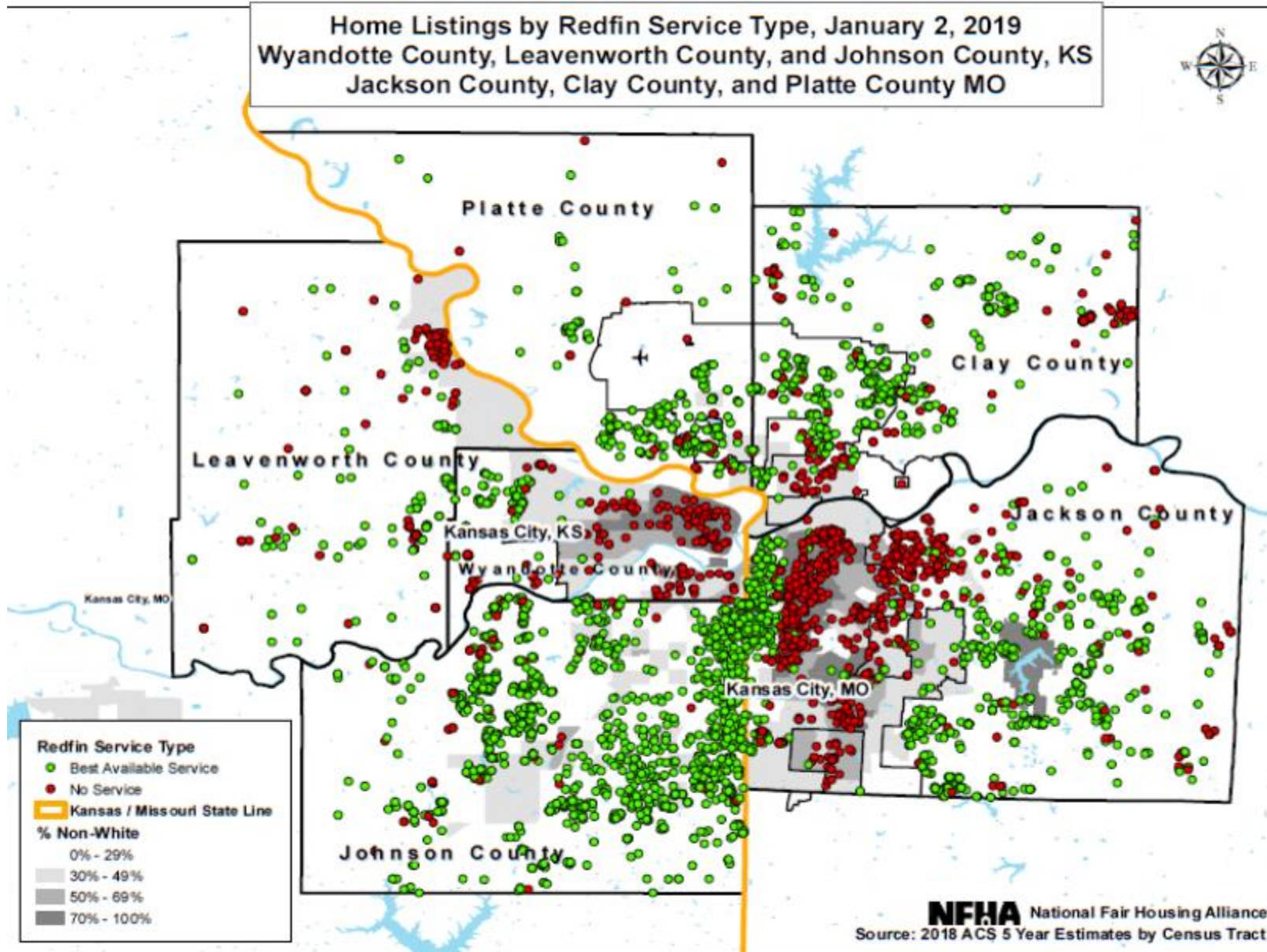
Brokerage will eliminate minimum home price for providing services

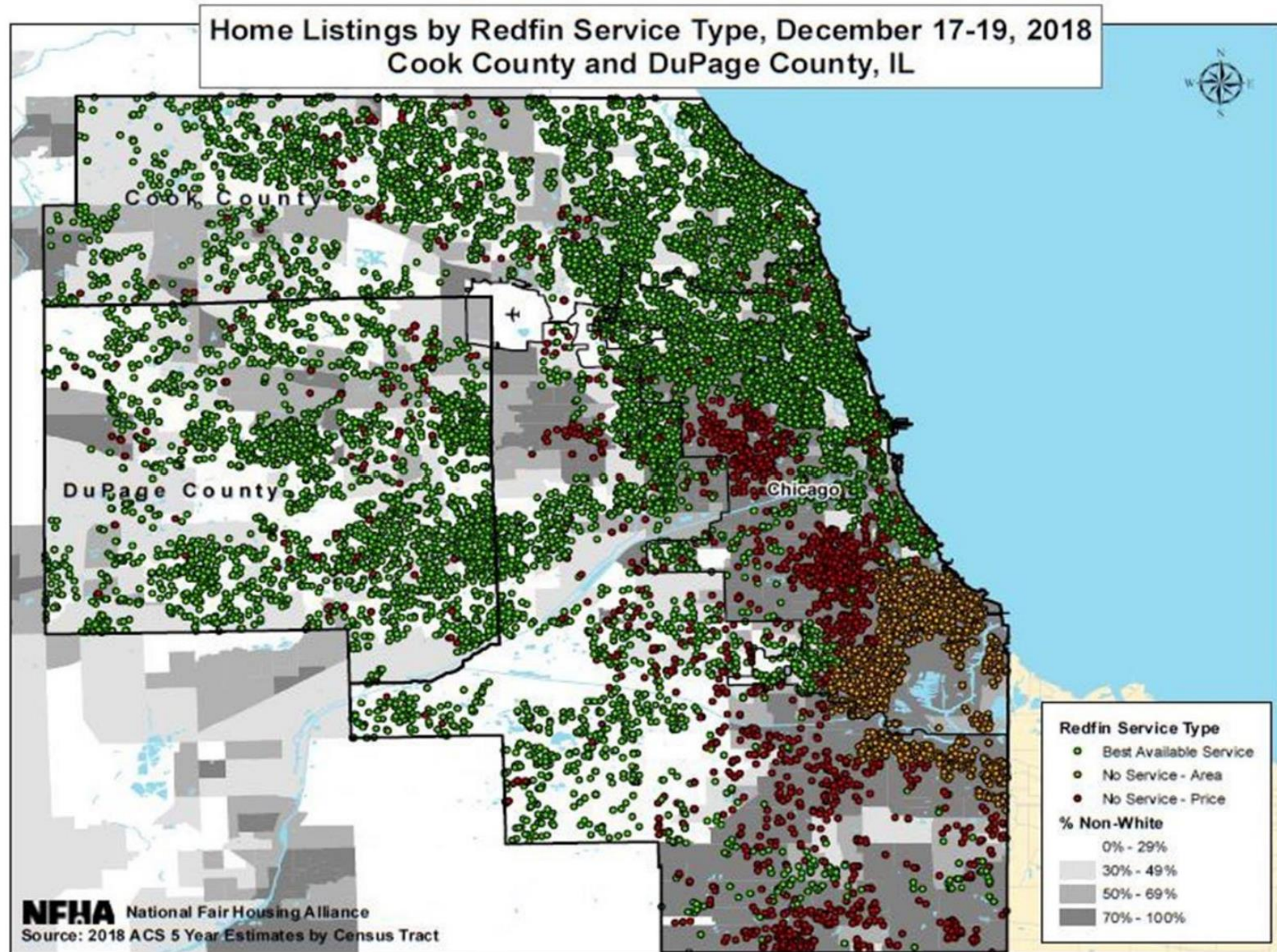
National / By [Suzannah Cavanaugh](#)













FEDERAL, STATE AND LOCAL POLICIES = STRUCTURAL INEQUALITY

***Headrights System**

Slave Codes

Original U.S. Constitution

Land Ordinances & Grants

Fugitive Slave Act

Homestead Act

Indian Removal Act

Freedman's Savings and Trust

Company Act

Black Codes

Jim Crow Laws

Beautification Zoning Ordinances

Home Owners' Loan Corporation Act

National Housing Act

Chinese Exclusion Act

Sundown Town Ordinances

Racially Restrictive Covenants

Social Security Act

Japanese Internment

Urban Renewal

Model Cities

National Highway Act

Restrictive Zoning Ordinances

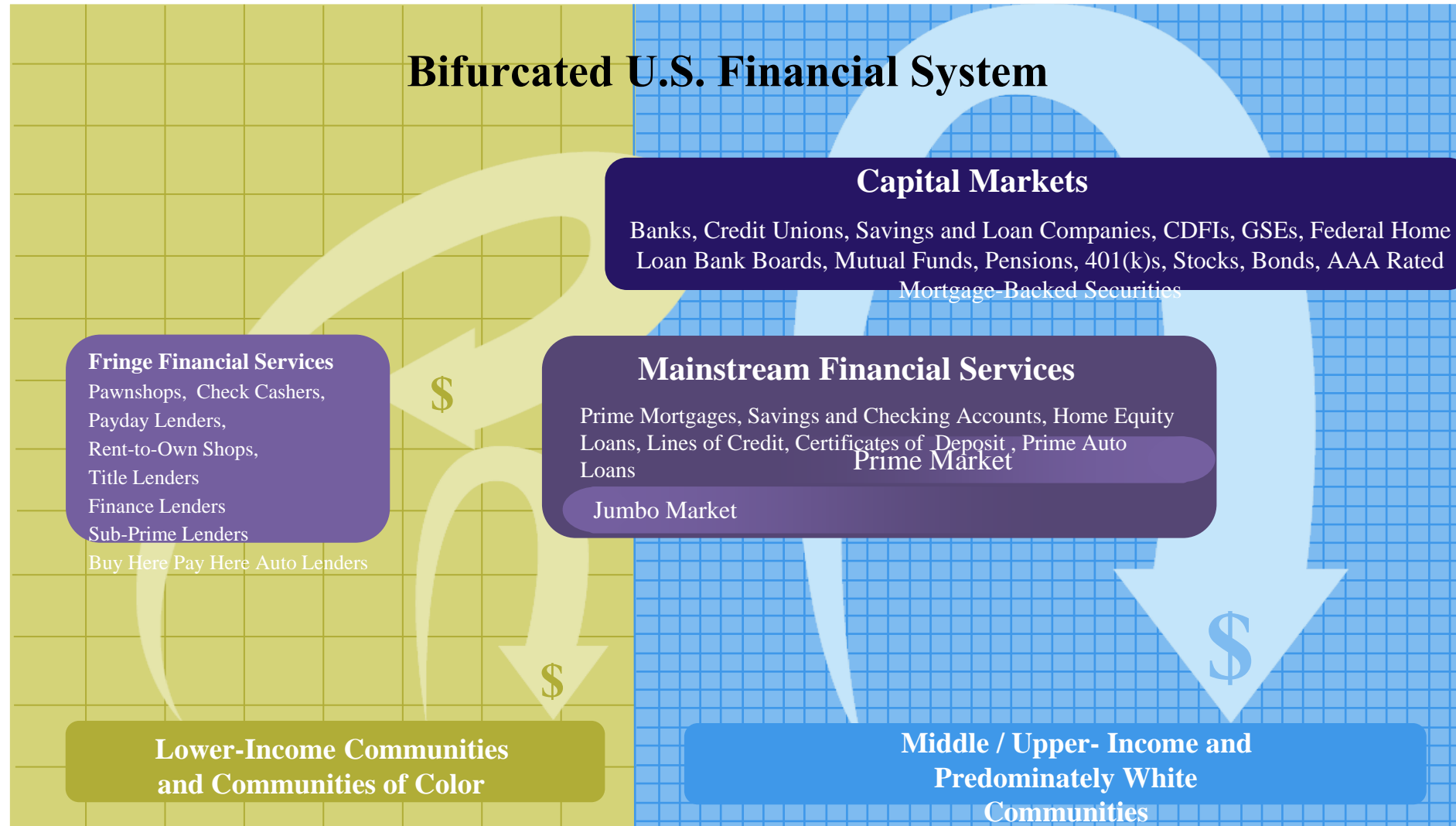
CARES Act

NFHA

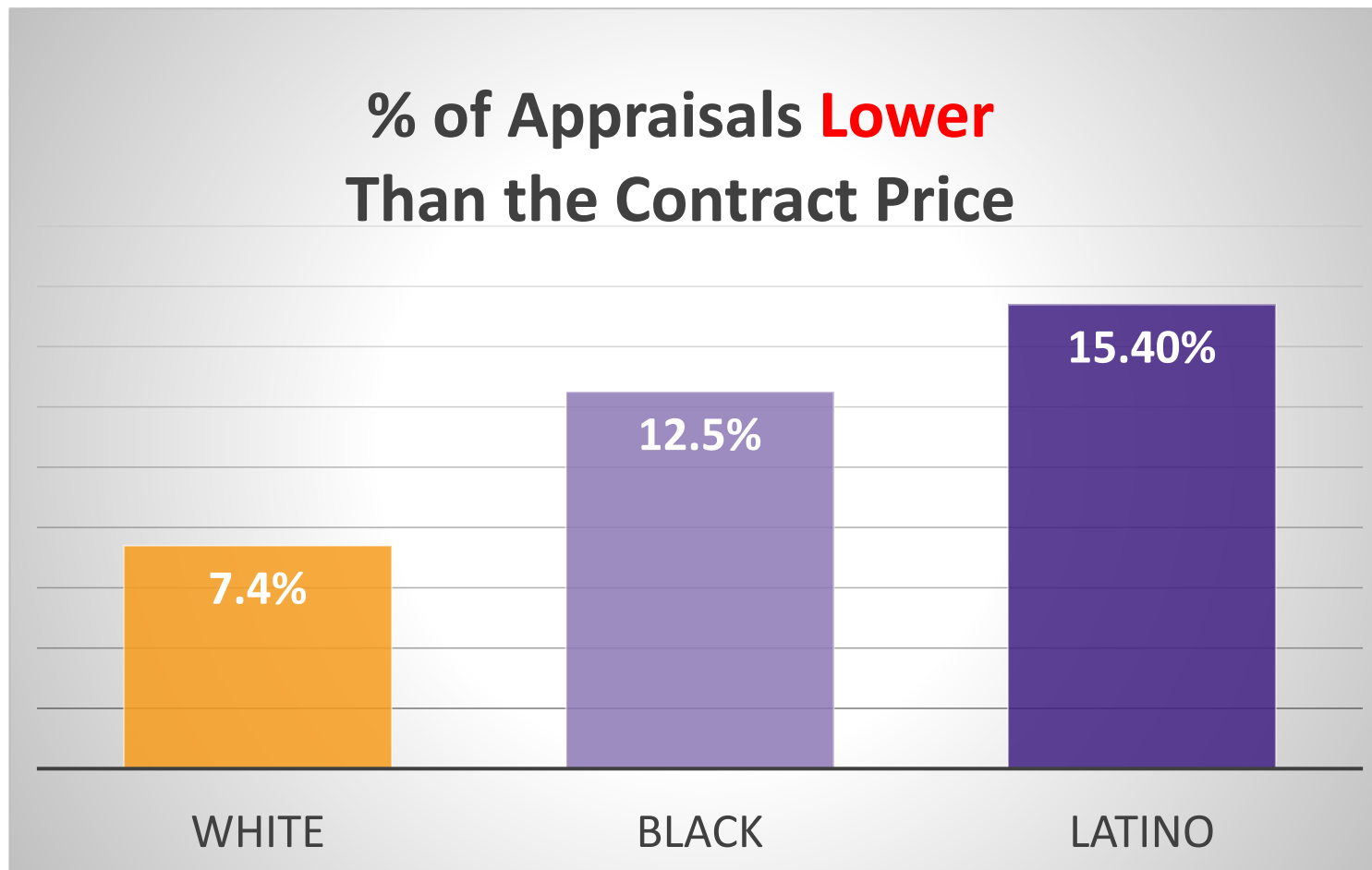
SYSTEMIC BARRIERS PERSIST CREATING BIASED DATA

- **Residential Segregation**
- **Restrictive Zoning Ordinances**
- **Dual Credit Market**
- **Biased Appraisal System**
- **Biased Technologies**

THE DUAL CREDIT MARKET

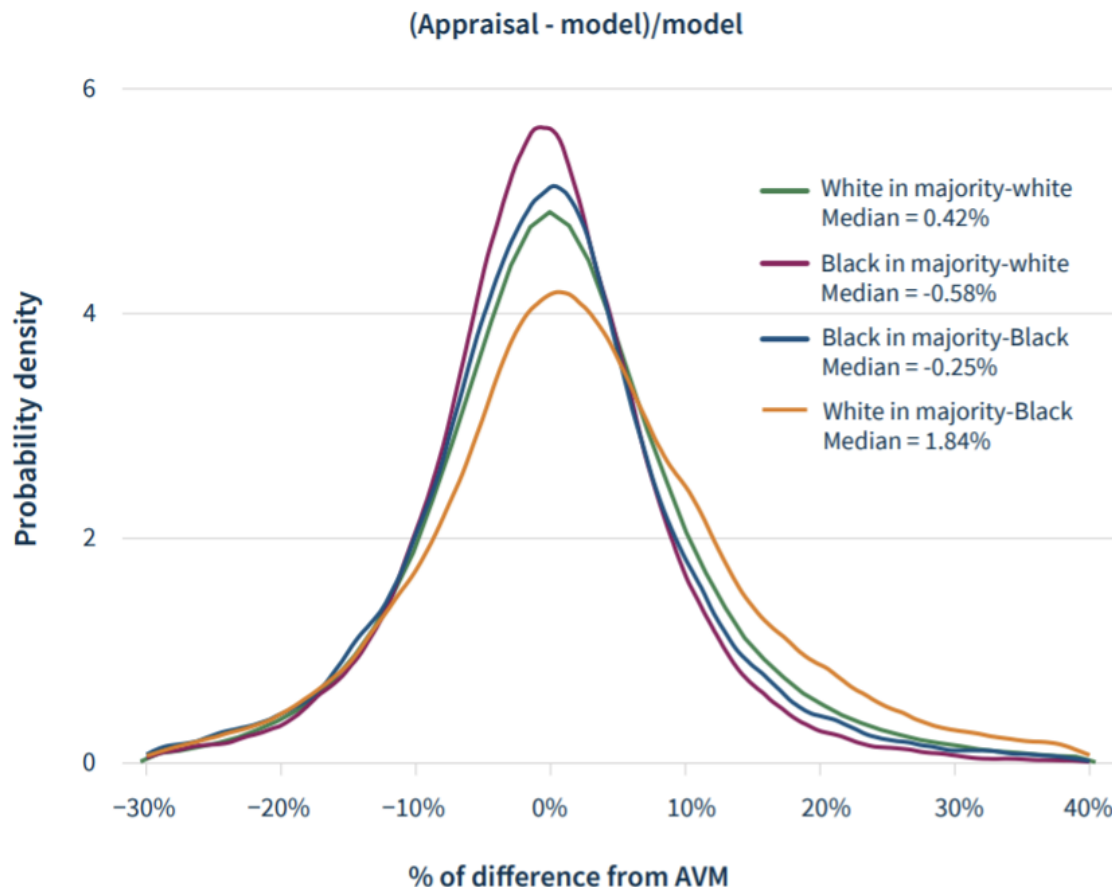


Systemic Evidence (purchase): Freddie Mac - Appraisers were more likely to find that the appraised value fell below the contract price in Black and Latino census tracts.



Systemic Evidence (refinancing): Fannie Mae – White-owned homes were overvalued more frequently than Black-owned homes.

Figure 1: Distribution of AVM comparison differences by racial groups



Systemic Evidence: Federal Housing Finance Agency - Thousands of appraisal reports contained race-related language.

- “Black race population above state average”
- “Storefronts supplying Jewish households”
- “Predominately Hispanic”
- “More Asian influence of late”
- “Homogenous neighborhood with good schools”

Individual Evidence (refinancing): Homeowners of color “whitewashed” their homes to get a fair appraisal.

The Homeowner	Initial Appraisal	White Friend Who Posed as the Homeowner (or a relative)	Appraisal After “Whitewashing” the Home
<p>Austin Family in CA</p> 	\$995,000		\$1,482,500 (+487,500)
<p>Carlette Duffy in IN</p> 	\$110,000		\$259,000 (+149,000)

Systemic Evidence: Dr. Andre Perry, Brookings Institution – Appraisal undervaluations cost families of color and the U.S. economy billions.



DATA AND TECHNOLOGY ARE THE NEW CIVIL RIGHTS FRONTIER

- **Technology is not innocuous**
 - Data is tainted
 - Computers are not blind
 - Technology can make it easier to manifest/replicate discrimination
 - Technology can amplify discrimination
 - Technologies systemize bias

STRUCTURAL AND SYSTEMIC BARRIERS IN TECH

- Facial Recognition
- Credit Scoring
- Automated Underwriting
- Risk-based Pricing
- Digital Marketing Platforms (Facebook, etc.)
- Tenant Screening Selection
- Healthcare Patient Treatment
- Employment Recruitment



Amazon built an AI tool to hire people but had to shut it down because it was discriminating against women



Employment

Health
Racial bias in a medical algorithm favors white patients over sicker black patients



Scientists discovered racial bias in a widely used medical algorithm that predicts which patients will have complex health needs. (iStock)

Healthcare

Credit scores in America perpetuate racial injustice. Here's how
Sarah Ludwig

Credit reports and scores reflect existing racial inequities in our credit system and economy
Tue 13 Oct 2015 10:14 EDT



▲ A bad credit score can lead to discrimination in housing and employment. Photograph: Alamy Stock Photo

Credit Scoring

APPLE POLICY TECH

Apple’s credit card is being investigated for discriminating against women

Customers say the card offers less credit to women than men
By James Vincent | Nov 11, 2019, 5:57am EST

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Image: Apple

Credit

The Markup

Big Tech Is Watching You. We’re Watching Big Tech.

Locked Out
Can Algorithms Violate Fair Housing Laws?

Landlords increasingly use screening services to weed out renters. Advocates say both landlords and the algorithms should be accountable when things go wrong
By Lauren Kirchner
September 24, 2020 08:00 ET



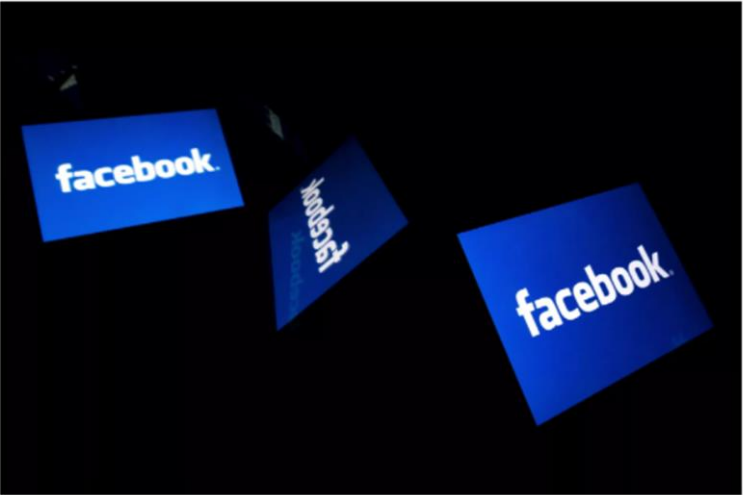
Buša Photography/Getty Images

Tenant Screening Services

After Lawsuits, Facebook Announces Changes To Alleged Discriminatory Ad Targeting

npr By Brakkton Booker
Published March 19, 2019 at 1:32 PM CDT

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Marketing Platforms

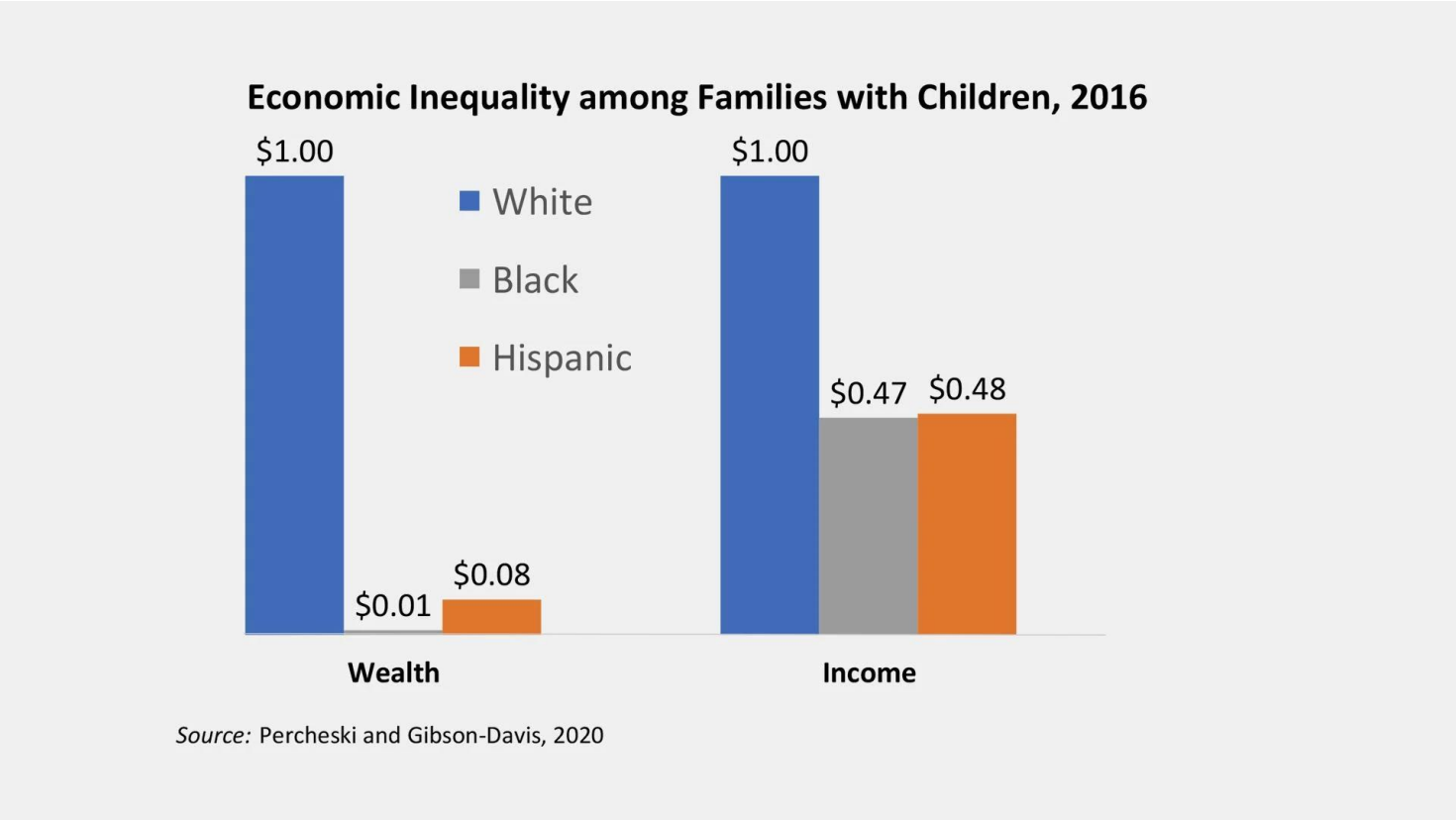
Racial Homeownership Gap: Percent vs. Percentage Points

	Asian	Black	Hispanic	White
Homeownership Rate: 2Q 2021	60.3%	42.3%	48.1%	72.2%
Percentage Point Gaps with White Households	11.9 pct	29.9 pct	24.1 pct	-
Percent Gaps with White Households	19.7%	70.6%	50.1%	-

Urban Institute
Source: 2019 ACS



A Penny on the Dollar





POLICIES AND PROGRAMS THAT ADVANCE FAIR TECH

- **NFHA's Tech Equity Initiative**

- Developing solutions for removing bias from the technologies that shape our lives
 - Increasing transparency and explainability for AI tools
 - Advancing research to help reduce bias in tech
 - Developing policies that promote more effective oversight for AI tools
 - Supporting efforts to increase diversity, equity, and inclusion in the tech field
- **Increase diversity, equity, and inclusion in Tech**
 - **Train engineers, data scientists, coders, etc.**
 - **Use clean, de-biased, accurate, and representative data**
 - **Increase transparency and explain-ability for algorithmic systems**





POLICIES AND PROGRAMS THAT ADVANCE FAIR TECH

- **Search for and employ models that have less discriminatory alternatives (ie. Less discriminatory impacts)**
- **Use comprehensive, equity-centered auditing frameworks**
 - **Purpose, Process, and Monitoring (PPM)**
 - Captures life cycle of a model – pre-development, development, and post-development, including monitoring
 - Provides approach for mitigating risks inherent in algorithmic systems
 - Gold Standard for auditing systems/frameworks
 - Equity-centered & increases fairness, accountability, transparency, & explain-ability
 - Should be used by regulators, enforcement agencies, researchers, civil rights groups, businesses, policymakers, & other stakeholders

