Innovations in Digitalization and the Future of Fair Housing

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Nestor M. Davidson (Fordham University)
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Abstract

In housing and mortgage markets, the increasing ubiquity of digitalization – emerging technologies that include AI, machine learning, and other types of informational automation – raises significant concerns about algorithmic bias, privacy, and the potential that centering data in public and private decision-making exacerbates power disparities. These are important concerns, but at the same time, innovations in digitalization hold promise for advancing civil rights in housing, supporting efforts to detect and remedy bias, as well as potentially offering creative new ways to direct federal, state, and local policies for housing justice. Novel data and analytics can empower advocates to detect and challenge patterns of disparate impact and policy choices that might perpetuate segregation, as well as advance nascent efforts to make real the more than six-decade-old promise that the federal government affirmatively further fair housing.

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Introduction

In housing and mortgage markets, the rapid proliferation of digitalization – a panoply of emerging technologies that includes AI, machine learning, and other types of digital automation\(^1\) – has raised significant concerns for fair-housing advocates focused on algorithmic bias, risks to privacy interests, and the real potential of exacerbating power disparities.\(^2\) To many advocates, centering data in public and private decision-making aggregates information, often involuntarily and without involving the communities most affected, that reflects inequality and opaquely replicates that same inequality. These concerns are critically urgent: much work needs to be done – is being done – to grapple with the deep shadow cast in the housing sector by emergent information technology.

At the same time, however, digitalization holds under-appreciated promise to advance fair housing. Innovations in collecting and analyzing the vast and growing amount of information about housing markets and structures, constraints on consumer choices, and the consequences of public and private practices can support litigation and other efforts to detect and remedy deep patterns of bias. These innovations also potentially offer creative new ways to direct federal, state, and local policies for housing justice. This potential is far from being realized, but it is important to identify that potential – and what might hold innovation back.

In the Fair Housing Act, Title VIII of the Civil Rights Act of 1968, Congress crafted a legal framework to respond to widespread problems of segregation, poverty stubbornly concentrated on the basis of race and ethnicity, and fundamentally unequal access to opportunity that marked the national metropolitan landscape of the era. The Act barred housing discrimination, but it also obligated the federal government and recipients of federal housing and urban development funding to further fair housing affirmatively, a mandate commonly known as “AFFH.” To be effective, the Act’s antidiscrimination provisions as well as its AFFH obligations require collecting, processing, and deploying a great deal of information – about the determinants of housing inequality, the differential patterns that policies and practices set, and the potential efficacy of interventions to respond to structural bias. As explained below, data has long been essential to detecting the predicates for, and then litigating, an important class of fair housing cases based on what is known as “disparate impact” liability, where

\(^1\) Williams, *Data Action*, 1-2. As Sarah Williams has noted, on some level there is nothing new about “big data,” algorithmic decision-making, and similar information practices in policy making, particularly around urban issues, but the underlying technological capacity to gather and act on data in an era of digitalization is undoubtedly advancing significantly.

policies and practices seemingly neutral on the characteristics protected by civil-rights law have discriminatory effects or perpetuate segregation.\textsuperscript{3} Data are equally central to assessing the outcomes of policies in planning for housing choice, an analytic imperative reflected in an AFFH regulatory framework that the Obama Administration adopted in 2015 that is emerging as even more central to federal housing policy in the Biden Administration.\textsuperscript{4}

In all these critical areas of fair housing, innovations in digitalization can accelerate the work of advocates and policy makers. Aggregating and analyzing novel sources of digital information – about a variety of determinants of housing choice, mobility patterns, and underlying market conditions – can unearth hidden patterns of bias with new precision and for characteristics protected by law but less visible to traditional data sources. Similarly, emerging analytical capacity can draw on digital information to add predictive value for a range of public and private decisions with civil rights implications in housing, which include subsidy structures, zoning and infrastructure policies, demolition and project siting decisions, affirmative marketing plans, and more. New information and new capacity to understand that data can also help the legal system more effectively address other aspects of equity that include sex, sexual orientation, national origin, ability, and other important aspects of identity protected against discrimination but insufficiently centered in current fair housing policy.

As explored below, however, there is a vein of rising judicial skepticism about explicitly confronting questions of race and other aspects of identity that could undermine the promise of the digitalization-fair housing nexus by functionally barring race-conscious (indeed, identity conscious more generally) policymaking, even for remedial efforts. This looming jurisprudential barrier makes innovations in data collection and analysis even more urgent, in the eventuality, perhaps quite soon, that advocates and policy makers will have to find alternative pathways to advance equity in housing, as we have seen in aspects of education policy, environmental justice, and other domains.

\textsuperscript{3} See Texas Department of Housing and Community Affairs v. Inclusive Communities Project, Inc., 576 U.S. 519 (2015); see also 24 C.F.R. § 100.500 (U.S. Department of Housing and Urban Development regulation setting the standard for disparate-impact liability under the Fair Housing Act).

It is important to resist Panglossian technological optimism – concerns about algorithmic bias, privacy harms, risks to data security, and digitalization’s tendency to exacerbate patterns of inequality are all well-founded. But it is equally important to think creatively about leveraging innovation where possible – in fair-housing litigation and in affirmatively furthering fair housing – to move our complex, all-too-opaque, fragmented systems of housing in more equitable and sustainable directions.

**Digitalization and the Domains of Fair Housing Law**

To understand the potential of digitalization to advance fair housing, it is helpful to begin with the basic structure of fair housing law. In the Fair Housing Act, Congress had an overriding focus on integration and the structures of inequality in our society. This focus manifests both in the Act’s primary antidiscrimination provisions – on the theory that in addition to the intrinsic value of barring individual acts of discrimination, those prohibitions would also undermine segregation over time – as well as the Act’s AFFH mandates. Digitalization is deeply relevant to all these facets of fair housing law.

**Detecting and Litigating Disparate Impact and Perpetuation of Segregation Claims**

Within the Fair Housing Act’s anti-discrimination framework, as with many other (although not all) civil rights statutes, courts have long recognized that liability can arise not only from acts of conscious bias, but also from seemingly neutral practices and policies that disproportionately burden groups based on characteristics protected by the Act. These claims under the Act fall under two legal theories: either that the policy or practice being challenged causes “harm to a particular group of persons by a disparate impact,” or that it causes “harm to the community generally by creating, increasing, reinforcing, or perpetuating segregated housing patterns.”

Advocates commonly invoke these theories to challenge exclusionary zoning, source-of-income restrictions (as where landlords have policies against accepting housing vouchers), criminal background checks, and English-language requirements, among other policies and practices in the public and private sectors.

Under either disparate impact or perpetuation of segregation theories, the first step for litigants and advocates is identifying a specific policy or practice that, in fact, limits housing opportunities on the

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basis of a protected classification. Proving the threshold legal determination then requires statistical evidence of disparate impact, under a judicial framework that requires claimants to identify “the subset of the population affected by the challenged policy” as well as “appropriate comparison groups” to show a sufficiently significant differential harm. This showing is generally undertaken by comparing the relative percentages of protected versus non-protected class members subject to the policy or practice. The US Supreme Court has also added a requirement that a claimant demonstrate “robust causality” between the challenged policy or practice and the resulting discriminatory effects, a requirement that lower courts have struggled to interpret, taking varying approaches to how close that causal link must be.

Meeting these analytical burdens can be very challenging for advocates generally, but courts have confronted a set of specific statistical problems that carry implications for emerging data-analytic capacity. These problems include identifying the relevant market for comparative purposes, given that courts have developed no clear understanding of the scale of such markets – from neighborhood to city to metropolitan region, and beyond – and the implications of markets that tend to be socioeconomically segmented. Moreover, data available to discern and prove patterns of discriminatory effect have many gaps. As Schwemm and Bradford have noted, for example, American Community Survey data do not adequately capture the gender of household heads by “tenure” at the neighborhood or jurisdictional level, how many people are in a household with the presence of children, or household race and ethnicity information broken down by income and tenure. Similar intersectional informational gaps abound.

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7 Schwemm and Bradford, “Proving Disparate Impact,” 693.
8 Ibid, 697-700.
11 Courts have used varying methodologies to assess impact, with some focused on comparative selection rates (i.e., those who are able to access housing), but many looking to comparative rejection rates. Schwemm and Bradford, “Proving Disparate Impact,” 707. As to what constitutes sufficient significance, there is no singular threshold, but courts generally find that plaintiffs have met this burden if they can demonstrate a ratio where the disparity between classes is well above 1.25, which is to say that at least five members of a protected class are rejected for every four members of a non-protected class. Ibid.
13 Ibid, 711.
Scholars have begun drawing on digitalization in some areas of fair housing, particularly in mortgage markets, to solve informational challenges. One study showed that Latinx and Black borrowers are charged higher interest rates on mortgages securitized by government-sponsored enterprises (GSEs). Although drawing on Home Mortgage Disclosure Act (HMDA) loan origination data, the authors supplemented their research with other sources of data to fill in the key variables HMDA omits. For example, they drew on information from ATTOM Data Solutions, a company that describes itself as a “national data warehouse” focusing on property sectors, for transaction and assessor information, including lien-holder name, loan-performance data, borrower and lender names, and exact property location. Similarly, the authors looked to McDash, a data source from Black Knight, Inc., that aggregates loan-level data, including detailed mortgage terms (e.g., interest rates, loan amount, LTV, and zip code of the mortgaged property) and monthly mortgage performance information. And they drew on Equifax for information on other consumer financing balances held by borrowers in addition to their mortgages. Merging these disparate, non-traditional data sources enabled the authors to measure variables such as performance information, contract terms, and lender and borrower details.

Sarah Williams has similarly illustrated the potential of emerging information technology to track relevant housing information, such as hidden vacancy rates in urban China, in her Ghost Cities case study. The project involved code that scraped and geocoded social media data, which the researchers then used to create a predictive model focusing on the link between access to amenities and likelihood of vacancy or partial occupation. The data analysts then checked the accuracy of the resulting predictions through qualitative data and were able to verify the value of the model, as well as correlations that disaggregated specific types of amenities, as a guide to policy responses.

These are only two examples of the insights that might be gleaned from novel data analytics – which the real estate industry itself has begun to embrace. A number of property technology companies like Skyline AI, which developed proprietary AI/ML models to track thousands of property, owner, and

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14 In addition to the Fair Housing Act, elements of mortgage markets are regulated by statutes such as the Fair Credit Reporting Act and the Equal Credit Opportunities Act, among others. It is beyond the scope of this paper to explore in depth the requirements of these varied statutes and their corresponding regulations, but many points about the potential of digitalization to advance equity have been made in those contexts as well. Langenbucher, “Responsible A.I.-based.”


16 Ibid, 34-35. Indeed, it is hardly surprising that one of the most contentious aspects of the Trump Administration’s attempts to loosen the legal standard for disparate impact – which were never ultimately implemented– was a proposal to create what would have amounted to a safe harbor for lenders using algorithmic decision-making. Aronowitz and Golding, “HUD’s Proposal,” 3-4.

17 Williams, Data Action, 96-114.
market attributes to find hidden predictive value in originating and developing commercial real estate, is emerging. New and vastly larger data sources and analytical capacity—especially with the rapid growth of AI—could similarly enhance the capacity of policymakers and advocates to understand and unearth patterns under which seemingly neutral policies disproportionately harm communities protected under the Fair Housing Act: the question being asked would not be which parcels have relatively higher margins, but which policies reduce housing choice.

Innovation in digitalization likewise has the potential to facilitate fair housing advocacy, moving beyond the categories of identity that have been at the center of enforcement efforts. This is occurring not just at the federal level, but also at the state and local level, where anti-discrimination law is often broader, for a legal regime that has had to grapple with evolving social, cultural, and demographic patterns. To take one example, the Supreme Court recently determined that Title VII’s protection against discrimination in employment on the basis of sex necessarily protects sexual orientation and gender identity in Bostock v. Clayton County. The same logic pertains in the Fair Housing Act context, yet data sources to trace the discriminatory effects of neutral housing policies on the LGBTQ community are much harder to obtain. Similar examples are not hard to imagine.

Digitalization and Affirmatively Furthering Fair Housing
As noted, the Fair Housing Act not only bars discrimination in housing, but it also contains two closely related mandates that reflect Congress’s broad structural approach to advancing integration – one directing the Secretary of Housing and Urban Development to “administer the programs and activities relating to housing and urban development in a manner affirmatively to further the policies of this subchapter,” [42 U.S.C. § 3608(e)], and a related provision [42 U.S.C. § 3608(d)], applying AFFH to the entire range of federal housing and urban policy. Courts have long made clear that these provisions mean that it is not enough for the federal government to bar discrimination or avoid policies that

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20 Oliveri, “Sexual Orientation.”
21 This government-wide AFFH obligation has rarely been enforced, except in some narrow contexts such as the Low-Income Housing Tax Credit (LIHTC) program. See In re Adoption of 2003 Low Income Housing Tax Credit Qualified Allocation Plan, 848 A.2d 1 (N.J. Sup. Ct. App. Div. 2004); see also Internal Revenue Service, Revenue Ruling 2016-29 (acknowledging Congress did not intend to exempt LIHTC from the Fair Housing Act’s AFFH provisions).
contribute to segregation, as critical as those imperatives remain, but rather that Congress obligated the federal government to take affirmative steps to foster integration.22

In 2015, HUD promulgated a new approach to AFFH, built on an information-centric process through which grantees would be directed to examine and then proactively plan for addressing fair housing concerns through a HUD-provided template drawing on detailed, HUD-provided data as well as their own data.23 HUD would thus supply grantees with nationally uniform data on racial and related patterns of integration and segregation, disparate housing needs, and indicia of economic opportunity, drawing on the Decennial Census and the American Community Survey as well more granular information from HUD, the Census Bureau, the Department of Education, and the Environmental Protection Agency.24

HUD’s framework requires that grantees deploy this data to identify four core areas of fair housing concern: “integration and segregation patterns and trends based on race, color, religion, sex, familial status, national origin, and disability within the jurisdiction and region”; “racially or ethnically concentrated areas of poverty within the jurisdiction and region”; “significant disparities in access to opportunity for any protected class within the jurisdiction and region”; and “disproportionate housing needs for any protected class within the jurisdiction and region.”25 From this comprehensive baseline analysis, jurisdictions must then identify and prioritize the factors – policies, market conditions, and others – that have significantly shaped the fair-housing landscape, setting prioritized goals to inform

22 See Shannon v. HUD, 436 F.2d 809, 816 (1970) (noting the statutory progressions from the 1949 Housing Act, which arguably gave HUD latitude to “act neutrally on the issue of racial segregation,” to the Civil Rights Act of 1964, which required HUD “to prevent discrimination in housing resulting from” federal investments, culminating in the 1968 Fair Housing Act, where Congress directed HUD to “affirmatively promote fair housing”); NAACP v. Secretary of Housing & Urban Development, 817 F.2d 149, 155 (1st Cir. 1987) (noting that “every court that has considered the question has held or stated that Title VIII imposes upon HUD an obligation to do more than simply refrain from discriminating (and from purposely aiding discrimination by others)”); see also AFFH Proposed Rule, at 43712 (citing the Housing and Community Development Act of 1974, 42 U.S.C. § § 5304(b)(2), 5306(d)(7)(B); the Cranston-Gonzalez National Affordable Housing Act, 42 U.S.C. § 12705(b)(15); and the Quality Housing and Work Responsibility Act of 1998. 42 U.S.C. § 1437c–1(d)(16), all of which require that HUD grantees to certify as a condition of receiving funds that they will affirmatively further fair housing).

23 See generally United States Department of Housing and Urban Development. “Affirmatively Furthering Fair Housing, Final Rule.” 80 Federal Register 42271 (July 16, 2015) [AFFH Final Rule]. The Trump Administration withdrew this final rule, after first proposing to modify it, see 85 Federal Register 2014 (January 14, 2020); 85 Federal Register 47899 (August 7, 2020), but HUD has now reinstated the relevant definitions and related certification requirements of the 2015 framework. Restoring Affirmatively Furthering Fair Housing Definitions and Certifications, 86 Federal Register 30779 (June 10, 2021).

24 United States Department of Housing and Urban Development, Affirmatively Furthering Fair Housing (AFFH) Data Documentation (July 2016).

25 AFFH Final Rule at 42355 (codified at 24 C.F.R. § 5.154(d)(2)).
strategies and actions in planning. HUD emphasized the flexibility in this framework, but the basic concept under the 2015 rule is that jurisdictions will use HUD and their own data to discern patterns, reflect on causes, and, most importantly, realistically plan to remedy the worst barriers to housing choice identified across policy domains such as zoning, siting, enforcement, and others.

How might innovation in digitalization advance efforts to affirmatively further fair housing within the HUD framework and other similar approaches that states and local governments have begun to develop? The kind of data that HUD has contemplated providing – and this is an area the Biden Administration is currently revisiting – is nationally uniform to enable comparisons across jurisdictions and a relatively standardized process, acknowledging that local data and public participation are also relevant. On issues ranging from neighborhood demographics to fine-grained aspects of school quality, to the interplay between job proximity and transit, to environmental justice, digital innovation can deepen our understanding of geographic patterns, and, most importantly, not only how neighborhood conditions change over time in general, but also the implications of specific policy interventions. Indeed, AI is facilitating counterfactual modeling, which allows planners to set baseline conditions and then ask questions about density and demographics as well as market and renter responses, which can then be iteratively refined as the model improves. Thus, if advocates and policy makers are to predict and track the outcomes of various potential policy interventions – as opposed to simply evaluating inputs (such as housing subsidy levels) and outputs (such as number of units constructed and location) – a great deal more information than is currently actionable has to be identified and analyzed to allow policymakers to be predictive about the consequences of specific choices they face.

Thus, for example, while there is relatively little debate that restrictive zoning in low-density, high-opportunity areas undermines racial (and socioeconomic) equity, there are many similar, contested policies in housing – the linkages between housing and transportation, the implications of increasing density on housing prices and displacement in micro-targeted ways, the geography of rental subsidies to create meaningful options for renters in constrained markets – whose impact we do not know nearly enough about in actual policy making. Novel data and the ability to scenario plan through AI/ML can refine policies to optimize for equity while refining the policy tradeoffs that can impede change. And

26 Ibid, 42355-56 (codified at 24 C.F.R. § 5.154(d)(4)-(5)).
27 Thus, how the demographics of housing in a community developed informs what policy changes need to be made in terms of where future housing should be sited decisions and affirmatively marketed; more deeply, the data framework can highlight the concentration and agglomeration effects of various patterns. Kao and Immergluck, “AFFH Metrics.”
28 Besharti & Waddell.
29 Kazis, “Fair Housing, Unfair Housing,” 15.
even where current data provide relatively actionable policy choices, innovation can lower information costs (for example, big data/ML can infer relevant variables about identity and housing markets, reducing the need to invest in surveys), make data more timely, and illuminate counterfactuals that open up new policy possibilities.

Another potential for digitalization to advance AFFH derives from the ability to access and analyze information about housing choices and barriers beyond core questions of race and ethnicity. As noted, the HUD AFFH framework calls for examining barriers to housing choice across the range categories of identity protected by the Fair Housing Act. The state of the data needed to understand and respond to specific fair housing issues for categories such as national origin, disability, sexual orientation and gender identity is nowhere near as robust as that available for race and ethnicity. For example, as Noah Kazis has pointed out, policymakers have never prioritized the nexus between gender and AFFH, decidedly difficult terrain that differs greatly from questions of segregation and differential access to opportunity along racial lines.\(^{30}\) Novel sources of data and analytical capacity could open new horizons to understand landscapes of equity, if creatively applied.

**A Looming Jurisprudential Challenge and a Data Equity Response?**

Recognizing that the positive potential of digitalization to advance fair housing requires acknowledging a potentially significant doctrinal barrier that is current looming: how long the legal system will continue to tolerate race-conscious policy efforts.\(^{31}\) Justice Kennedy, writing for the Supreme Court in *Texas Department of Housing and Community Affairs v. Inclusive Communities Project, Inc.*,\(^{32}\) expressed doubt that interpretations of the US Constitution will continue to support policies that emphasize race, even as the Court affirmed that the Fair Housing Act includes disparate impact and perpetuation of segregation liability. As Justice Kennedy put it for the Court, “difficult questions might arise if disparate-impact liability under the FHA caused race to be used and considered in a pervasive and explicit manner to

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\(^{30}\) Kazis, “Fair Housing for a Non-Sexist City,” 1735.

\(^{31}\) A similar skepticism about race consciousness pervades jurisprudence about disparate impact liability, predicated as it is on the structural implications of facially neutral policies and practices. It also bears noting that courts have begun invoking First Amendment free speech and associational rights to narrow the scope of the Fair Housing Act. See, e.g., Fair Housing Council of San Fernando Valley v. Roommate.com, LLC, 666 F.3d 1216 (9th Cir. 2012) (interpreting the act not to apply to the selection of roommates, in part to avoid what the court saw as constitutional concerns). A weaponized First Amendment, like aggressive color-blind constitutionalism, could narrow the scope of remedial possibility under the Fair Housing Act.

justify governmental or private actions that, in fact, tend to perpetuate race-based considerations rather than move beyond them.”

This Constitutional skepticism reflects larger trends across civil rights jurisprudence about the continued constitutional viability of race-consciousness in policymaking, regardless of whether the policy seeks to remediate private discrimination or instead seeks to addresses the structural legacy of such discrimination. The Court has insisted repeatedly in recent years that any considerations of race must be subject to “strict scrutiny,” the most exacting standard of judicial review, requiring any such policy to be strictly necessary to the achievement of a compelling government purpose. For justices subscribing to this view – and they are now in the majority – the concern is that even well-intentioned use of racial categories perpetuates racial thinking. As Chief Justice Roberts famously crystalized this so-called “color-blind” Constitutionalist view, “the way to stop discrimination on the basis of race is to stop discriminating on the basis of race.”

A co-author and I recently argued that under Justice Kennedy’s view and the endorsement by the Supreme Court of narrow circumstances in which the benefits of diversity support the use of race as one factor in admissions in higher education, a similar rationale could apply to justify race-conscious policymaking under the strict scrutiny standard for the benefits of integration at the community level. The Court has found that even if race is inherently suspect based on abstract principles of racial justice or historical remediation, race may have a legitimate role to play in a racially plural democracy because of the social stability and pedagogical value a diverse student body offers. A similar argument for a compelling state interest can be made in housing, where diverse neighborhoods achieve outcomes that are highly socially valuable.

33 Ibid, 543.
36 In higher education, the Supreme Court has endorsed Justice Powell’s conclusion in Regents of California v. Bakke, 438 U.S. 265, 311–12 (1978) (Powell, J.), that “the attainment of a diverse student body . . . is a constitutionally permissible goal for an institution of higher education” justifying race as one factor in admissions. See, e.g., Gratz v. Bollinger, 539 U.S. 244, 270–71 (2003); Grutter v. Bollinger, 539 U.S. 306, 325 (2003) (“We endorse Justice Powell’s view that student body diversity is a compelling state interest that can justify the use of race in university admissions.”). As the Supreme Court has put it, enrolling a diverse student body “promotes cross-racial understanding, helps to break down racial stereotypes, and enables students to better understand persons of different races... Student body diversity promotes learning outcomes, and better prepares students for an increasingly diverse workforce and society.” Grutter v. Bollinger, 539 U.S. 306, 330 (2003). The Supreme Court, however, has also said that race must be part of a holistic admissions process, and any such use must be narrowly tailored to achieve goals that could not otherwise be accomplished through means that do not consider race. Fisher v. University of Texas (“Fisher II”), 579 U.S. 365 (2016).
37 Davidson and Peñalver, “The Fair Housing Act’s Original Sin.”
Were some version of this argument to find purchase in a future challenge to disparate impact or the application of an invigorated AFFH policy, one challenge would be marshalling evidence that residential integration generates the same kind of benefit that diversity fosters in higher education. The education analogy would thus require evidence of the broad social impacts of integration; given the complex nature of the social-science literature on neighborhood effects, having the ability to aggregate and analyze novel data sources could shed important light on these outcomes.

That defense of race consciousness – whatever its implications for digitalization – may now be a strategy on shakier legal grounds. The Supreme Court recently issued rulings in a pair of cases involving admissions policies at Harvard and the University of North Carolina, narrowing significantly the circumstances under which the consideration of race is constitutionally permissible.\textsuperscript{38} Although nominally limited to higher-education admissions, these cases may make race-consciousness policymaking more challenging in a variety of other circumstances.

Such an outcome would have obvious consequences for AFFH and other equality directives. That unfortunate doctrinal shift, however, may make innovations in digitalization all the more important, fostering the practical development of alternative metrics – not necessarily direct proxies for categories protected by the Fair Housing Act, but at least correlates – to advance equity in relation to race, and perhaps more broadly identity-neutral ways. In education, raising the threshold for considering racially remedial approaches in admissions has spurred policy experimentation around alternative metrics such as income inequality, partially as a proxy but also as a broader way to advance equity. Texas, for example, famously adopted a plan for admissions to the University of Texas under which students in the top ten percent of their high school graduating classes would gain automatic admission, partially on the theory that that would ensure some measure of diversity at the University, given geographic patterns across the state.\textsuperscript{39}

Similarly, when the Biden Administration recently announced its new framework for targeting environmental remediation, making clean-energy investments, and focusing climate mitigation – known as the Justice40 Initiative – the White House Council of Environmental Quality designed a system to aggregate a wide variety of data on income, unemployment, and proximity to environmental hazards.\textsuperscript{40} The resulting matrix targets communities without explicit consideration of race but will likely correlate closely with traditional environmental justice efforts.

\textsuperscript{38} Students for Fair Admissions, Inc. v. President & Fellows of Harvard Coll., 600 U.S. ___ (2023 WL 4239254 (2023)).
\textsuperscript{39} Holley and Spencer, “The Texas Ten-Percent Plan,” 245.
\textsuperscript{40} Friedman, “White House.”
In a fair housing policy context where it may soon be increasingly difficult for policymakers and advocates to confront race and other traditional points of identity that have been marked by a history of discrimination and the on-going structural legacy of that discrimination, finding ways to understand and reduce barriers to housing choice in terms acceptable to identity skeptical constitutionalism takes on new urgency. Such policy experimentation would be a second-best approach to advancing equity, to be sure, but one that would make creativity and innovation in data collection and analyses all the most important.

**Conclusion**

As noted at the outset, artificial intelligence, machine learning, and other digital automation tools to aggregate and transform the vast streams of data that swirl throughout housing markets can reinforce bias and subordination and should be approached with caution. But innovations in digitalization can also help advocates and policymakers extend the breadth and depth of longstanding, still-imperfect tools of fair housing law. Novel data and analytics can empower advocates to detect and challenge patterns of disparate impact and policy choices that might perpetuate segregation, as well as transform nascent efforts to make real the more than six-decade-old promise that the federal government would actually bend its power toward affirmatively furthering fair housing.
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