

Addressing Inefficiencies and Reflecting the Desires of Low-Income Housing Stakeholders: Recommendations to the Department of Housing and Urban Development to Deploy a Simplified, Developer-Driven Affirmative Fair Housing Marketing Plan Filing Process, as well as Review Proposals for Adaptive Policy Mechanisms

by

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B.S. Computer Science, Yale University, 2019

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Abstract

The Affirmative Fair Housing Marketing Plan (AFHMP) is a set of regulations passed by the U.S. Department of Housing and Urban Development (HUD) to govern the sharing of information about applications for low-income rental housing in accordance to the Fair Housing Act. Collaborators of this work at Camfield Estates, a low-income housing development in Boston, MA, communicated concerns over the regulations' efficacy as well as desires for increased autonomy in the process of tenant selection and application marketing. The purpose of the research conducted was to describe, using social science and statistical methods, the limitations of the AFHMP regulations that are pertinent to low-income developments, to amplify any voiced concerns of Camfield Estates that may also help other low-income developments, and offer suggestions for improvements for the AFHMP regulations to align with their original goal.

Qualitative interviews of low-income housing developers, development residents and staff, and HUD New England Compliance staff to identify the following limitations of the AFHMP which prevent effective enforcement of fair housing goals: (1) that there is significant administrative burden, for both filers and HUD staff, in maintaining and checking for policy compliance, (2) that guidelines for when to file updates were underdefined, (3) that guidelines for how to conduct the analysis to determine groups least likely to apply to a property were underdefined, and (4) that both stakeholders at low-income developments and HUD New England Compliance demonstrated interest in extending affirmative marketing to improve outcomes for those with intersectional identities, such as to address the difficulties of accessing

housing while being single, male, and Black. A quantitative analysis of AFHMP, resident, and census data for Camfield Estates was conducted to study the first, second, and third concern in context.

Recommendations for immediate changes that would respect Camfield Estates' concerns of autonomy and wouldn't significantly increase cost of administrative burden for HUD are made, including: (1) that the AFHMP form be simplified to reduce administrative burden, to reduce room for error in the analysis of groups least likely to apply to the development, and to reduce barriers to updating marketing strategy more frequently if needed, (2) that greater flexibility should be allowed in determining affirmative marketing strategy, perhaps by allowing qualitative, free-form response, and (3) that developers should themselves determine the groups least likely to apply to the development, and HUD should send out a memo banning other agents like housing authorities from limiting developers with pre-completed, read-only analysis on forms. A recommendation is also made for space to be allowed for a link to a survey on newest AFHMP forms for further work to be conducted by approved researchers. To support a long-term feedback mechanism for policy relevance, an exploration of adaptive regulations to govern fair marketing is presented.

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Overview of Thesis

In this thesis, research is presented on the Affirmative Fair Housing Marketing Plan, its impact on a low-income housing development in Boston, MA, and its limitations in its current form. In Section I, the research partner for the study, whose desires for change led to the analysis that followed, is introduced. Additionally, the role of data science in addressing questions of housing policy and broader questions of fairness is defended. In Section II, the Affirmative Fair Housing Marketing Plan is introduced along with an explanation of its impact. An analysis of its current limitations are presented using results of qualitative interviews and a quantitative study of our collaborators' data submitted in 2016. Recommendations are made for policy changes in the near-term. In Section III, an exploration of adaptive policy structure options are presented for the long-term.

The Role of Data Science and Technology & Policy Studies for Combatting Systemic Racism in Housing

1.1 Research Partner: Camfield Estates

This work was conducted in collaboration with, and partially sponsored by Camfield Estates, a housing development in Boston, MA. This section provides a brief introduction to the research partner and nature of the partnership.

Camfield Estates is a 102-unit town house community located in Boston’s South End. It was a participant of the Department of Housing and Urban Development’s (HUD) demonstration-disposition, or “demo-dispo,” program, a 1993 initiative that renovated and sold foreclosed multifamily properties in poor condition to resident-owned organizations. In 2000, the renovated property was transferred to the nonprofit Camfield Tenants Association, Inc. (CTA) (Pinkett 2002).

Camfield Estates is characterized as a low-income housing development. Since October 1981, 100-percent of new tenants of Camfield Estates have had incomes that are characterized by the U.S. Department of Housing and Urban Development as “very low” (defined as $\leq 50\%$ AMI, or Area Median Income) (“Camfield Gardens Tenant Selection Plan” 2014). Today, approximately 90-percent of tenants employ Project Based Section 8 Vouchers, a type of federal subsidy for housing afforded to low-income individuals to help pay for rent in the areas that they need to live (Ford 2022).

Camfield is known locally as one of the highest quality low-income housing developments in the South End neighborhood. According to residents who were on a waitlist prior to moving to Camfield, this is attributed to its cleanliness, safety, and courtyard structure, which they say make it suitable for families with children (Food Drive 2022). The historic demo-dispo renovation that allowed for this was completed under leadership of Paulette K. Ford, former CTA President (“Paulette K. Ford” 2018). Now, after her passing, residents say that the quality of the development is maintained by her daughter and current CTA President, Paulette M. Ford, who also organizes a variety of community events, food drives, and other resources for residents. Both Paulette K. Ford and Paulette M. Ford are recognized and lauded as formidable and dedicated community leaders, wearing multiple hats—from business and administration, to advocacy, to homework help for Camfield’s youngest residents (Food Drive 2022).

Camfield Estates has a long-standing relationship with research and teaching at MIT, including with the MIT Media Lab (Pinkett 2002) and the MIT Department of Urban Studies and Planning (McDowell 2022). The current collaboration was initiated by the current CTA President due to her interest in advancing research in fair housing.

1.2 Applications of Data Science Methodologies to Combat Systemic Racism in Housing Processes

The United States has a history of discriminatory processes enabled by public and private actors that resulted in racial disparities in housing. These included racial covenants—legal deeds used by private and government agencies which prevented Black households from purchasing white-owned homes; and redlining—the prevention of access to loans, including FHA-insured mortgages, FHA-subsidized suburbs, and the GI Bill low-interest home loan program, to Black people because Black neighborhoods were labeled as unsafe to lend to. Stemming from those historical precedents,

policy and legal frameworks still prevailed in various forms which allowed for housing disparity (Rothstein 2018). Predatory lending, or unfair mortgages and refinancing schemes, disproportionately disrupted Black homeowners (Taylor 2019). Appraisals of Black-owned homes have been shown to be lower than those of white-owned homes (Perry 2022). While the legal practice of racial covenants has been overturned, exclusionary zoning by wealth still retains the effects of segregated neighborhoods in the U.S., preventing many Black people from accessing quality schools, employment, and other resources (Rigsby 2016). And now, algorithms, which automate background checks other screens for potential tenants, also have the opportunity to worsen such injustices (“Tech, Bias, and Housing Initiative: Tenant Screening” 2022). There is systemic housing disparity on the basis of race in the U.S. as a result of historical and current laws, processes, and policies.

History-aware, politically-engaged data science could play an important role in establishing anti-racist laws, processes, and policies in housing. When used appropriately, it holds advantages in providing clarity of a proposed theory and providing a means for others to affirm results consistently. As Rodrik claims, while critical argument and debate can always surround the *validity* of an economic researcher’s theory, “there are no debates about *what* those economists had in mind who used math [emphasis added]” (2015). With this in mind, data science may be useful for the following research applications towards combatting system racism in housing: contributing evaluations of disparity in a particular context for housing, theorizing causal pathways for racially disparate outcomes in housing, and identifying appropriate anti-racist interventions for those causal pathways. The following provide a sample of research contributions in these areas.

1.2.1 Applications of Data Science to Measure Disparity in Housing Contexts

There are several research examples where data science was employed to evaluate or measure housing equity. One case is Desmond and Kimbro (2015). Studies have

shown that Black renters have a significantly higher likelihood of eviction than white households (Wedeen 2021). Desmond and Kimbro’s contributions provide further information on the ways that disparity can result in harm. They evaluated the impact that eviction has on the physical and mental health of low-income urban mothers and their children, leveraging national survey data from the longitudinal Future of Families and Child Wellbeing Study. They concluded that this population faced more material hardship, more occurrences of depression, worse self-reported physical health for themselves and children, and more parenting stress than similar mothers who were not evicted (2015). Such data science studies which seek to measure disparity and its manifestations can help support anti-racist policymaking.

1.2.2 Applications of Data Science to Theorize Causal Pathways for Racial Disparate Outcomes in Housing

Data science can also be used to build causal theories relevant to anti-racist policymaking. An early example was Thomas Schelling’s simulated models of neighborhood population dynamics in the 1970s. His tipping point models were effective in building social interaction theory, which could be used to describe white flight (1971). These models could later be tested empirically (Card, Mas & Rothstein 2008). The study supported theory of *why* segregation occurred through pen-and-paper simulations of *how* it could occur (Schelling 1971).

Data science can also be used to organize observed data in support of a causal theory. Massey et al. used data science to show evidence of structural discrimination in predatory lending and the extent to which it was relevant to individual discrimination lawsuits. The results support theory-building around the causes of disparate rates of home-ownership by race. Previously, quantitative evidence of disparate lending patterns during the U.S. housing boom was found: Black people more likely received high-cost, high-risk loans than white people after controlling for known factors to affect the terms of lending. Massey et al. contributed evidence that discrimination during the U.S. housing boom in the form of predatory lending was structural as well

as individual, by assembling a dataset of randomly sampled statements from individual discrimination lawsuits. They found that 76% of the qualitative data suggested structural discrimination effects, why only 11% suggested individual discrimination effects alone (2016).

Lastly, data science can be used to collect experimental data to support theory-building relevant to anti-racist policymaking. An example study was conducted by So in 2022. A behavioral experiment was run wherein landlords were given generated tenant screening reports (based on real examples from tenant screening companies) and were asked to make decisions about which tenants they would select. The resulting data and follow-up survey responses were analyzed, providing evidence that landlords used blanket screening policies, misinterpreted tenant records, and on average displayed automation bias from tenant report scores (So 2022). The results of the behavioral experiment contribute to theory around the role that tenant screening services play in disparate outcomes for Black applicants' selection as tenants.

1.2.3 Applications of Data Science for Intervention Design and Assessment

Finally, data science has been employed to design interventions for fair housing by drawing causal inference. A well-known study is Moving to Opportunity, a randomized controlled trial (RCT) wherein the U.S. Department of Housing and Urban Development offered vouchers to families living in high-poverty areas (the head of household of a majority of families identified as African-American), to be able to move to areas of lower poverty. The causal effect of having an option to move, as well as the estimated effect of moving, was measured on indices of adult economic outcomes, physical health, and mental health, and child education, physical health, mental health, and risky behavior. The significant changes in psychological distress scores and blood test-detected diabetes as a result of the option to move, the notable differences in youth outcomes by gender, and the lack of change in economic self-sufficiency or absence of mental health problems, were important findings to in-

form future intervention design that aimed to combat structural racism (Ludwig et al. 2013).

1.2.4 The Role of Qualitative Research in Supporting Theory Building

Even with its advantages, it is tempting to critique any scope for data science in policy research potentially dangerous.

One may point Jorge Luis Borges' allegory of dedicated cartographers as a story of caution: in striving for a more detailed map, one that captured more information than the last, fictional cartographers create maps drawn larger and larger; in the end, a 1:1 scale map was drawn; and the map was rendered completely useless for navigation (Borges 1999). In other words, data science may concentrate on exactitude and lose relevance for policy application.

On the other extreme, one may see models as an attempt to reduce complex human realities; or that they can allow decision-making without real understanding. One may say that even randomized controlled trials, the gold standard for causal inference, can be limited—the causal effect that exists in one community or country may not generalize to another. It is easy to mistrust data science as a tool.

So indeed, the use of data science in policymaking must strike the difficult balance between abstrusion and reductiveness; inadequacy and impracticality.

However, an assumption that may be made in such critiques is that data science is performed without contextual knowledge. With the knowledge, which is built by qualitative research, the bounds of models may be better understood, and their necessary specifications for decision-making better framed. Indeed, many of the research sampled in the previous sections employ qualitative research to improve the rigor of the study.

Qualitative data collection, analysis, and reasoning can improve modern data science research for policymaking at all stages of the research cycle. At the end stage, qualitative assessments can understand the scope and limitations of an implemented

intervention, as in the case of Rao, Ananthpur & Malik (2017). In the field experiment stage, qualitative analysis can help build corroborative evidence for the causal inference made (Paluck 2010). Qualitative research can even build supportive structures to conduct quantitative assessments. In Levy and Firchow, for example, qualitative research is conducted to define context-based metrics for measuring peace (2021). Lastly, qualitative research can be critical for the initial processes of theory building. As claimed by Lieberman, qualitative research could be treated analogously to the stages of biomedical research before the human trials phases—evidence, from *ex vivo* trials, from *in vivo* trials, and so forth, are built in layers to build evidence of a causal mechanism, while minimizing harm (2016).

One study which employed qualitative assessment at all stages to support data science research for policymaking is the case of Isolat, a COVID-19 modeling effort that sought to determine minimum testing requirements for the greater MIT community. The modeling team, co-founded by Hosoi, communicated the underlying concepts of the model effectively, and engaged repeatedly with stakeholders to incorporate public health, operations, and governing information into model updates and subsequent conclusions drawn regarding the university’s reopening. The research team could further leverage these qualitative results in building a decision-support tool for other organizations to assess their testing requirements (“IDSS COVID-19 Collaboration” 2020).

1.3 Research Ethics and Human Values

There are several important ethical considerations when conducting social science research with “field study.” This section outlines some of those questions and the human values this work gives importance to.

1.3.1 Limitations of Positivism

Historically, technical and scientific research has been guided by the positivist philosophy. Positivism states that the seeker of knowledge (e.g. the researcher) is separate

from and able to objectively observe reality. It states that there are hard rules and universal laws which eventually can be learnt, through experimentation. The truths found by previous researchers are learnt and built upon by the next researcher. (Guba and Lincoln 1994).

Positivism favors a view that answers can be found objectively. Under positivism, the biases, assumptions, and political views of the researcher do not affect the outcome. It favors methodologies that use quantitative data, and also discounts subjective lived human experience as a source of understanding (Fox 2008).

A critical view claims that unbiased, apolitical answers to many questions are impossible to achieve—technology affects politics, and politics affects technology—but that ought to not bar those questions from access to the methodologies and structure of science. For someone of technical training to not ask those tricky questions—what ought to be done to combat global warming? How do we eliminate poverty? What is the best way to stop the spread of disease? What is the path to social equity?—is limiting for human society, and irresponsible on the part of technologists.

The critical view additionally claims that human lived experience is a powerful source of understanding, and is a source of data that shouldn't be discounted. To discount another voice is in reality to claim one's own as superior.

In line with this critical view, this work upholds that questions of importance to social wellbeing and progress should all be asked by those with the unique opportunity to study science, math, and technology. It acknowledges that the solutions provided cannot be free of biases and values of the researcher. Yet, it upholds the notion that such work still ought to be done.

1.3.2 Defining an Approach of Inquiry - Freire's Pedagogy of the Oppressed

Freire's Pedagogy of the Oppressed is a treatise that describes education's role in driving social action. This work seeks to adopt a few ethical guidelines from it for research towards social action.

Freire, an advocate and adult educator, describes education as the vehicle to liberate society from injustice and oppression. But, he claims, education should not be narrative and unidirectional—teachers should not deposit knowledge in the classroom like a agents in a “banking system.” Instead, education’s primary focus should be to empower society—it should strengthen faculties latent within all members of the classroom to inspire action and change. Educators should be “problem-posing,” asking questions to push for critical thinking from others, allowing the classroom to build knowledge together. This approach empowers everyone; the teacher is not the sole expert and keeper of information (Freire 1970).

What does this mean for me as a researcher? I interpret Freire to assert that as a researcher, I should not feel that I own any knowledge—my duty is to facilitate the organization of a collectively built knowledge. I should strive to build my awareness of the biases I bring to my research. I should never speak on another’s behalf without their permission—I should not be comfortable sitting with and employing full narrative control. And most importantly, research findings shouldn’t simply be deposited away in a knowledge bank without practical application.

Instead, research should employ what Freire describes as “praxis”—reflective action (1970). I must return the investment and opportunity given to me by society to conduct research by acting. I interpret “acting” to mean communicating and discussing theory with stakeholders, sharing and collecting feedback on models, advocating for policies, or disseminating findings. In other words, I hope to make the knowledge gained accessible to those who may benefit, and those who, even if not in academia, could shape and improve upon the knowledge. Any action should be regularly followed by reflection to identify how to improve those actions, whether that means collecting feedback and improving inefficiencies, assessing past personal and ethical decisions, or bringing my awareness to the myriad ways knowledge was built outside of one lab.

Finally, I interpret Freire’s work to mean that humility and an orientation to service are core tenets to robust research, for such qualities promote research that doesn’t ignore data and knowledge from unconventional sources, that takes feedback

at all stages, that raises awareness of my own biases and incentives, and that prioritizes the desires of those who contribute their stories and data to the research.

1.3.3 Acknowledging the Power Dynamics of Social Science Research

Research ethics today builds on precedents from the Nuremberg Code, the Helsinki Declaration, and the Belmont Report—attempts to prevent historical injustices from repeating in the name of scientific study. They raised awareness of the need to assess the harms and benefits of the research, and properly communicate that assessment; to protect privacy and confidentiality; and to provide informed consent in order to respect the humanity and rights of study participants.

In reflecting on research ethics for this work, I think about the tremendous gains I receive from the research—as part of a research career and a master’s certification. I do not not wish for this work to be exploitative towards those personal incentives.

A main ethical principle that this work seeks to follow is that our collaborators should not be invited to contribute to this work only for the purpose of speaking their pain. Instead, the design and goals of this research are to be fully framed by the collaborators’ desires for the future. This work strives to earn its access to the knowledge that was gathered (Tuck and Yang 2014).

This work also concedes that there will be imperfections and mistakes made in this process, and asks the owners of stories and data presented for forgiveness.

Overall, this works strives to minimize harm, amplify desires for the future of those who have shared their stories, and facilitate the organization and communication of the knowledge gathered by the community.

Critical Assessment of The Affirmative Fair Housing Marketing Plan

2.1 Motivation

2.1.1 Scenario

The developer of a low-income housing project looks around. This is the community her mother set up, the community she grew up in, the community she continues to call home. With one of the longest waitlists for low-income housing in the surrounding area, her community has a positive reputation for its active residents' union, its community programming, its cleanliness, and its safety. She hopes to continue in the footsteps of her late mother, after whom she was named—beloved by her neighbors for the positive change she enabled by mobilizing her community to be a pilot project in the federal Department of Housing and Urban Development's (HUD) landmark Demolition-Disposition program, which rebuilt old, low-quality housing into live-able homes for low-income tenants.

And there are signs she is following her mother's path: her community loves her. Elders are proud of her; how she's grown up with them, and now has taken on an enormous challenge and responsibility as developer. Young people come to her for homework help and conflict resolution. Over the years, there's been a community computer lab added, a weekly food drive, and other valuable resources for residents.

However, in many ways, she feels that she could do more. She's constrained by a complicated chain of command, one where HUD funds a local housing authority

to oversee federally-subsidized housing, which in turn contracts a private property management company that oversees the project. HUD policies get morphed in practice as the power of enforcement exchanges hands.

She notices, for example, how little diversity her community has. Once majority Black or African American, she notices fewer than five Black residents now, and no white or Asian individuals lease either. Almost all residents identify as Hispanic or Latino, and while she has been happy to adapt to the needs of the changing characteristics of her community, including language accommodation and cultural programming, she knows that these very real, tangible changes about the makeup of her community are actually the result of some paperwork that she feels doesn't make a lot of sense.

She knows—by talking to residents, by knowing people's reasons for moving away, by understanding some simple facts about the long waitlist in her community—what outreach she needs to do in order to improve the diversity of the community. But some statistical calculations made by her housing authority, lacking nuance and based on some regulations made 50 years ago, dictate otherwise. And she wants this to change.

2.1.2 Why Study the Affirmative Fair Housing Marketing Plan

Conversations occurring with the president of the Camfield Tenants Association between September 2021 and May 2023 revealed several concerns, but among them, that desires for diversity in their development were not met, due to limitations in a policy called the Affirmative Fair Housing Market Plan (AFHMP) regulations. This was one among several pain points which contributed to general feelings of a lack of autonomy over the ability to improve their community in ways she sought necessary and desirable. She felt over-constrained, losing agency in favor of housing authorities and private property management companies contracted with federal HUD funding to oversee them. She sought research to document the extent of the issue and recommend improvements towards their goal of improving the diversity of her community (Ford 2021-2023).

It was later also revealed that limitations of AFHMP regulations were also of

concern and research interest to the U.S. Department of Housing and Urban Development (HUD). An interview with the Program Compliance Review Branch Chief of HUD Region I revealed a strong motivation for improved descriptive and evaluative research of this policy to move towards fair housing goals (Barry 2022).

2.2 Introduction to the AFHMP

2.2.1 A Goal of Fair Housing; An Instrument of Affirmative Administration of Resources; An Desired Outcome of Reducing Dual Markets and Segregation

Housing in the United States has a history of discriminatory processes enacted by public and private actors. These included racial covenants, redlining, predatory lending, and biased appraisals. In this context of disparate access to quality housing, Congress enacted the Fair Housing Act. Formally Title VIII of the Civil Rights Act of 1968, the Act declared, “It is the policy of the United States to provide, within constitutional limits, for fair housing throughout the United States (42 USC 3601).”

The Fair Housing Act created a statutory mandate for the instrument of this goal to be that federal housing programs be administered affirmatively. That is; federal housing programs should be administered in favor of individuals belonging to groups that historically were discriminated against.

Among racial disparities in access to housing were the rise of dual housing markets in United States, where certain housing communities sought to attract white individuals, and certain housing communities sought to attract Black individuals. Communities were increasingly becoming segregated. With the landmark *Brown v. Board of Education of Topeka* decision made in the Supreme Court declaring “separate but equal” claims unconstitutional (“*Brown v. Board of Education: Summary, Ruling & Impact*” 2023), the reduction of these dual, racially segregated housing markets, as well as the reduction of segregation of communities, also was an objective of HUD towards the goal of fair housing.

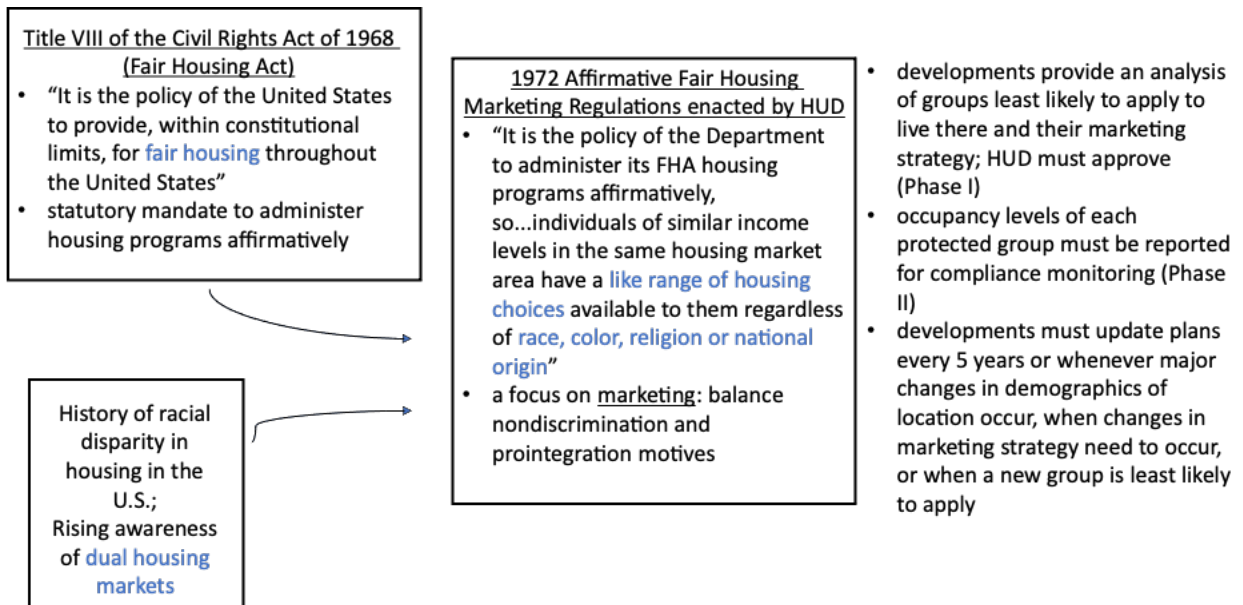


Figure 2-1: Summary of Context for 1972 Affirmative Fair Housing Marketing Regulations Enacted by HUD, as well as the Basics of the Regulations.

2.2.2 Policy Details

The AFHMP regulations of 1972 were enacted within this context, as summarized in Figure 2-1. Towards the affirmative administration of housing programs and to address dual housing markets specifically, it declared as its goal to enable “individuals of similar income levels in the same housing market area [to] have a like range of housing choices available to them regardless of race, color, religion or national origin (24 CFR § 200.610).” It focused specifically on affirmative marketing, or marketing to groups that may not otherwise apply to live at a place, as an instrument to equal housing choice, perhaps as an attempt to balance nondiscrimination and prointegration views (Hartman and Squires 2009). It mandated that developments employing federally-funded housing resources, including low-income developments administered under Public Housing or taking Project Based Section 8 Vouchers like Camfield Estates, market applications to their development affirmatively (“Developers Guide to the Design and Implementation of Affirmative Fair Housing Marketing Plans”).

The process for verification of developments’ affirmative marketing involves the

two checks by HUD and regular monitoring. In Phase I, developments provide an analysis of “groups least likely to apply” to live there, as well as their strategies to market to those groups, to HUD for approval. Reference information to the advertising media used and local organizations with which marketing information are shared are included in forms filed with HUD. In Phase II, development occupancy statistics must be provided for compliance monitoring by HUD, along with any updated analysis of groups least likely to apply and resulting marketing strategy updates. Developments must provide these Phase II updated plans regularly (“Developers Guide”). According to a memo most recently shared by HUD New England, guidelines for the frequency of these updates are as follows:

- every 5 years, or
- whenever major changes in demographics of the locale occur, when changes in marketing strategy need to occur, or when a new group is least likely to apply (“Fair Housing and Equal Opportunity Guidance on Affirmative Fair Housing Marketing Plan Review” 2014).

2.3 Purpose

The purpose of this work was to describe limitations of the Affirmative Fair Housing Marketing Plan regulations, and provide recommendations to improve the experiences of low-income housing developers and residents under the AFHMP policy, to improve the process in practice to align with the original intent of the policy, and to work towards broader goals outlined in the Fair Housing Act of 1968.

2.4 Methods

2.4.1 Perceptions of AFHMP from Conversational Interviews

Towards documenting known limitations of AFHMP regulations, interviews were conducted between September 2021 and May 2023 with Greater Boston Area low-income

development residents, resident union presidents, owners/developers, property managers, and current and former development staff, and the HUD Region I Compliance Review Chief to understand perceptions of AFHMP regulations.

All interviewees from across backgrounds agreed that limitations often existed in practice when complying with AFHMP regulations.

(1) The first concern raised was that there are significant administrative burdens to maintaining and checking policy compliance, both on the filers (property managers), and on HUD staff. HUD staff have several competing priorities, and so compliance reviews can in practice only take place when occupancy statistics are extremely abnormal, such as when all of a development identify with one race, ethnicity, or national origin.

(2) The second concern was that guidelines for when to file updates were under-defined. As one interviewee put it, “things may change drastically over 5 years, or may not (Barry 2022).” How effective will the policy be if the marketing strategies are updated at too slow a rate? On the other hand, much valuable time might be spent in unnecessary paperwork if the marketing strategies need not be updated very often at all?

(3) The third concern: that guidelines for how to conduct the analysis to determine groups least likely to apply were underdefined. This causes, in practice, market analysis to be conducted by housing authorities on behalf of low-income developments, which can use cookie-cutter solutions or use slightly older data. This may be reasonable in many cases, but it may be a concern for a subset of developments in highly changing neighborhoods. This can steer affirmative marketing strategies in ways that are not always useful.

(4) The fourth result was that, among both stakeholders at low-income developments and HUD New England Compliance, there was demonstrated interest in extending affirmative marketing to improve outcomes for those with intersectional identities, such as difficulties accessing housing while being single, male, and black.

2.4.2 Understanding Limitations 1, 2 and 3 in Context Using Real Data

Camfield Estates' 2016 AFHMP Form

In all AFHMP forms, the analysis of groups least likely to apply involves a worksheet where the demographic characteristics of the housing development's (also known as the housing project) residents, applicants, and census tract have to be filled in. A "housing market area," or description of a likely population that could apply to the development, as well as an "expanded market area" has to be defined. The demographic characteristics of those have to be given as well. These markets in practice are defined by the MassHousing for many low-income developments in Boston (Ford 2022a).

An exploration of some of the limitations documented from conversational interviews with stakeholders was conducted using Camfield Estates' most recent AFHMP form submission. Table 2.1 shows data submitted in 2016 by their property management using housing authority-provided "expanded housing market area" statistics. The expanded housing market area was defined in the form as Suffolk County, MA. Groups least likely to apply were determined to be individuals identifying as White, American Indian or Alaska Native, Asian, or Native Hawaiian or Other Pacific Islander ("Camfield Estates HUD Form 935.2A" 2016). The data is then summarized as a bar graph.

Verification of Analysis

A verification of the "expanded market area" data was conducted by trials to replicate the analysis (see Table 2.2). The investigative trials are summarized below. It became clear from the process that the market area analysis is non-trivial to produce as well as is non-trivial to reproduce.

Table 2.1: Camfield Estates AFHMP Data Submitted in 2016 to Support Analysis of Groups Least Likely to Apply.

	Project's Residents	Project's Applicant Data	Census Tract (805)	Expanded Housing Market Area (Suffolk County, MA)
% White	17%	15.72%	20.9%	56%
% Black or African American	66%	12.9%	54%	21.6%
% American Indian or Alaskan Native	0%	0%	0.4%	1.1%
% Asian	0%	3.22%	3.3%	9.1%
% Native Hawaiian or Pacific Islander	0%	0%	0.1%	0.3%
% Hispanic or Latino	15%	50%	42.9%	19.9%

Submitted July 29, 2016
Form 935.2A (12/2011)

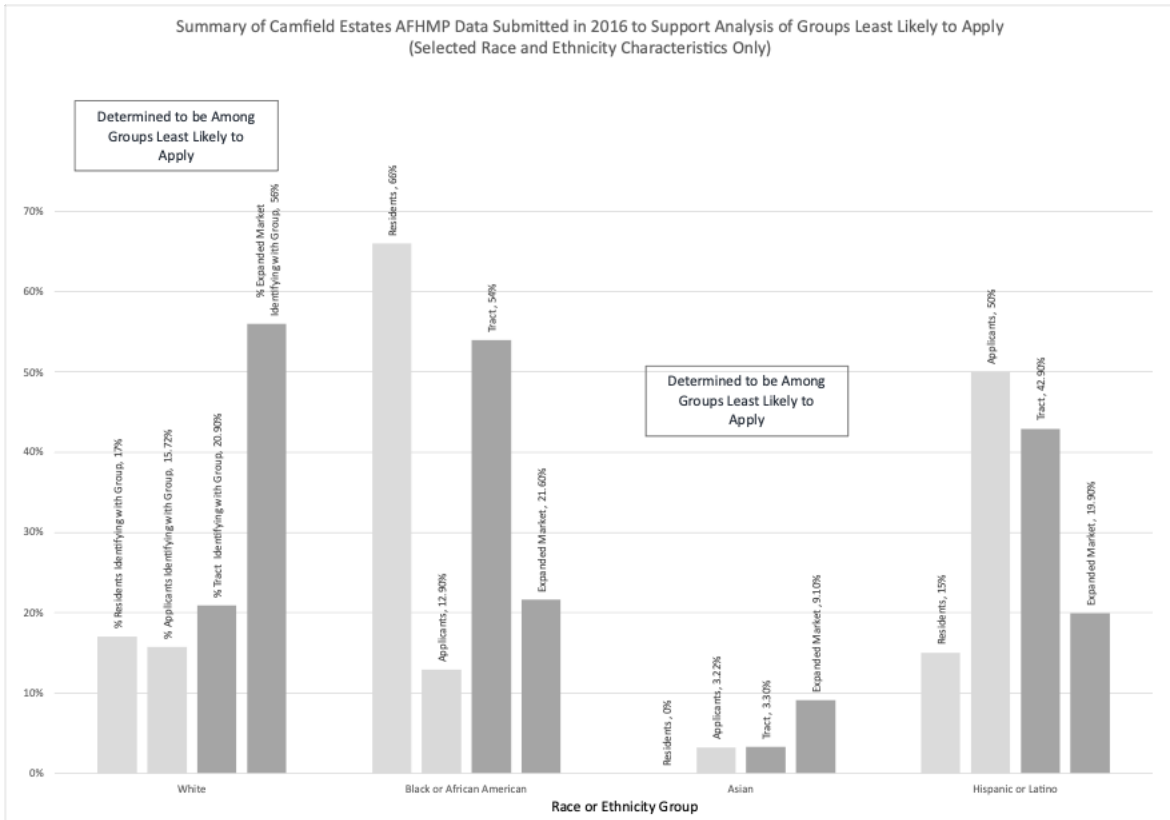


Figure 2-2: Summary of Camfield Estates AFHMP Data Submitted in 2016 to Support Analysis of Groups Least Likely to Apply (Selected Race and Ethnicity Characteristics Only).

Table 2.2: Summary of Verification of Expanded Market Area Data Submitted in Camfield Estates AFHMP 2016 Filing.

Descriptor of Data	Data from AFHMP Form for Expanded Housing Market Area (Suffolk County, MA)	Identifying with that Race Alone	Identifying with that Ethnicity/Race Alone or in Combination with One or More Other Races	Identifying with that Race Alone	Identifying with that Ethnicity/Race Alone or in Combination with One or More Other Races	Identifying with that Race Alone	Identifying with that Ethnicity/Race Alone or in Combination with One or More Other Races
Source of Data	Source: Camfield Estates 2016 AFHMP Form	Source: ACS 2015 5-Year Estimates	Source: ACS 2015 5-Year Estimates	Source: ACS 2015 1-Year Estimates	Source: ACS 2015 1-Year Estimates	Source: 2010 Decennial Census, calculated from population counts	Source: 2010 Decennial Census, calculated from counts of individuals identifying with a specific combination one or more racial identities; counts that identify as Hispanic or Latino
% White	56.0%	55.5%	60.6%	55.5%	60.7%	55.99%	58.57%
% Black or African American	21.6%	22.4%	26.6%	22.4%	26.6%	21.65%	23.66%
% American Indian or Alaskan Native	1.1%	0.3%	0.8%	0.2%	0.8%	0.41%	1.07%
% Asian	9.1%	8.6%	9.5%	8.8%	9.7%	8.23%	9.05%
% Native Hawaiian or Pacific Islander	0.3%	0.0%	0.2%	0.0%	0.1%	0.04%	0.27%
% Hispanic or Latino	19.9%		21.3%		22.1%		0.20%

Validation of Analysis

The determination of groups least likely to apply was then tested for validity in a few ways, labeled Question 1, Question 2, and Question 3.

Question 1: The expanded market area defined as seemed a little broad. The effect of considering only those of annual income \leq \$49999 (approximately the maximum income levels of those that can apply) to make up the potential market for the determination of those least likely to apply was investigated.

Question 2: The use of 2010 census data seemed out of date compared to the 2015 American Community Survey data that would have been available at the time of filing. How do the results change when this data is used? The results are summarized below, with the addition of the dotted bars.

Question 1 Results: It can be seen that without more recent data and a filter on income, the percent of the “expanded market area” that is White is overestimated. This is something that would be captured in lived experience/the developer’s perception of the market (e.g., “most of the White individuals in the county wouldn’t be able to apply anyway because of the low-income restriction”) but not in the data coming from the housing authority’s analysis. It’s conceivable that this could impact

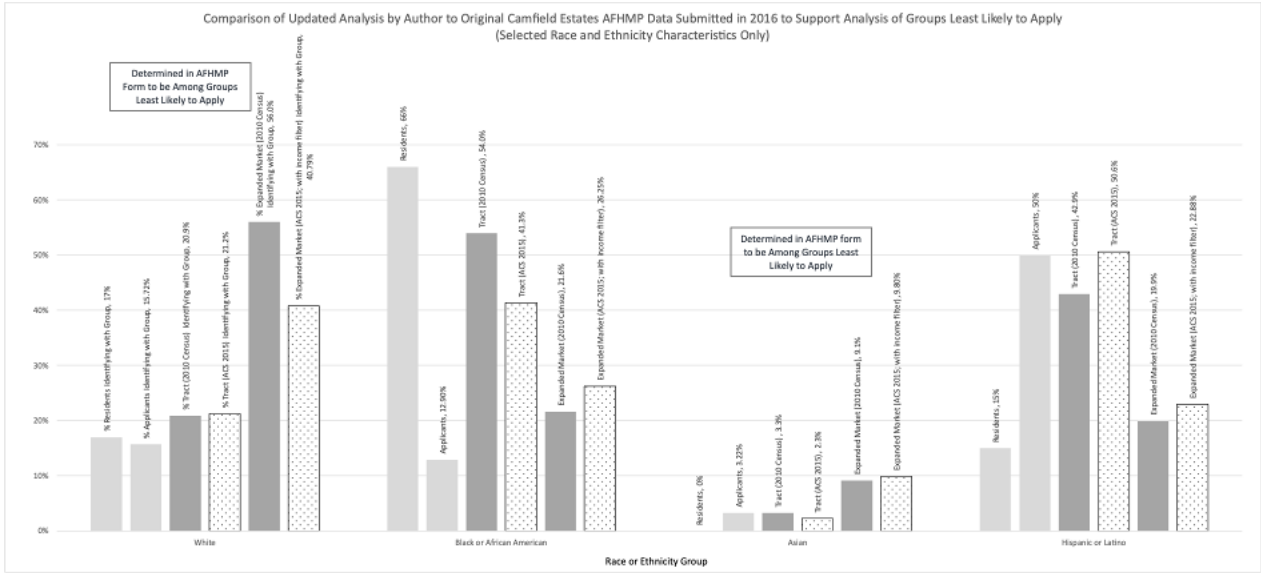


Figure 2-3: Comparison of Updated Analysis by Author to Original Camfield Estates AFHMP Data Submitted in 2016 (Selected Race and Ethnicity Characteristics Only).

the analysis of groups least likely to apply.

Question 2 Results: It can be seen that using updated data revealed that the tract was not actually majority Black or African American anymore, and that it was majority Hispanic or Latino. One could imagine a scenario where the developer might see a trend of the neighborhood becoming less Black or African American, see low Black or African American applicant rates, and see community members moving away. They may desire to devote some marketing to Black outreach to proactively maintain diversity in their community. However, the nature of the AFHMP form being a quantitative, snapshot-in-time may not capture this good-faith reason for outreach. Perhaps, the current analysis template without considerations of changes over time is limiting. Especially for a development with a waitlist like Camfield, they have to think a bit more long-term about their marketing strategies.

There are three options for what to change to capture this good-faith reason: collecting more data to support more nuanced reasons, collecting more frequent updated forms, or a qualitative analysis (“free-form response”) should be accepted as part of the analysis of groups least likely to apply.

- More data would make the process more complicated and more expensive.
- More updates cannot be mandated or triggered by an appeal process by developers because the same frequency may not be relevant to all developments and because administrative burden shouldn't be increased. At the least, what should change is that when updates are needed, they be able to be done with reduced barriers to entry.
- Qualitative analysis is possible but difficult administratively to validate. However, perhaps a comment box should be included in the next version of the AFHMP form to support more nuanced good-faith analyses being allowed.

Question 3: According to the guidelines set by HUD (“Fair Housing and Equal Opportunity Guidance on Affirmative Fair Housing Marketing Plan Review” 2016), developments must update plans every 5 years or whenever major changes in demographics of location occur, when changes in marketing strategy need to occur, or when a new group is least likely to apply. With the flexibility of this guideline, and when the property manager control form submission/housing authorities control the data analysis, the time can easily extend. Case in point, this AFHMP 2016 plan is the latest form filed for Camfield Estates. Are the results of the analysis of groups least likely to apply consistent throughout this time period?

For this validation question, a scenario of a developer in 2021 reflecting on their current marketing strategies is considered. American Community Survey 2021 tract data was used as a stand-in for what the developer sees and experiences in their local community at the time. This is summarized below with the added thick-outlined bar to the same graph.

Question 3 Results: It is shown that there have been major changes in the demographic make-up of the census since the last form was filed. Nearly 1 out of 2 individuals in the tract now are White. White individuals no longer would likely be considered a group least likely to apply to the development, even though the 2016 AFHMP filed still dictates that the development market to the group.

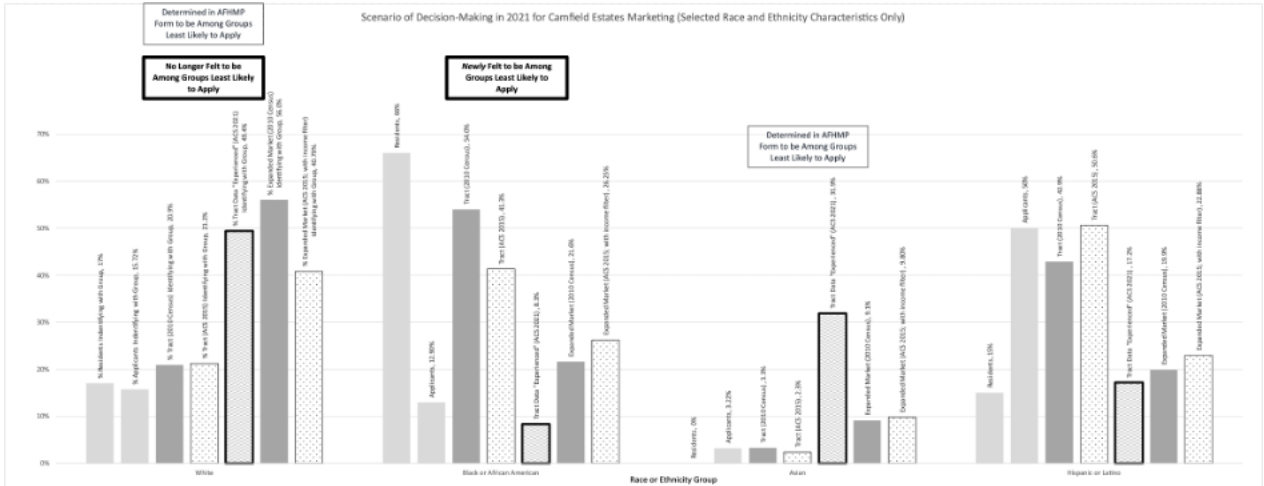


Figure 2-4: Simulated Scenario of a Developer’s Experience in 2021 with Camfield Estates’ Marketing Strategy.

In contrast, less than 1 out of every 10 individuals in the tract are Black or African American. Unfortunately, occupancy data at the time is not available to show, but based on interview results, the number of Black residents at Camfield very likely also decreased. Thus, the developer would have felt that Black individuals should be considered a group least likely to apply, even though the 2016 AFHMP filed still dictates that the development not market to the group.

Lastly, the percent of the tract that identified as Asian changed dramatically too, possibly as a result of the targeted marketing strategies. Compare the form’s statement of 2.3% to 2021 experienced population being 31.9% of the tract. In combination with the right occupancy changes and applicant rate changes, and the fact that the tract had a relatively higher percentage of Asians than the “expanded market” it is conceivable that the developer’s feeling of whether Asian individuals need to be considered a group least likely to apply could also have changed too.

Thus, the developer’s lived experience and feelings about required affirmative marketing may differ from the form’s analysis conducted by the housing authority and the filing by the private property manager. It would therefore be best for developers/residents to drive the marketing strategy for their communities. But for this to happen, they should have the ability to conduct/support their analysis themselves.

Summary of Findings

It was revealed through the above analysis that

- The form, as it is, is overcomplicated to file and to verify (see Results 1)
- One’s beliefs about a market and the results of market analysis can differ because of differences in methodology (see Results 2)
- More frequent updates to marketing strategy might be needed in some cases even if not for others (see Results 2)
- The current template for market analysis is inflexible; it cannot capture complicated reasons for a new market strategy like noticing changes over time and adapting while honoring waitlists (see Results 2)
- One’s beliefs about a market and the results of a market analysis can differ because of changes over time since the last data and differences in lived experiences (see Results 3)

2.4.3 Short-term Policy Recommendations

The following policy changes are recommended in response to the above results:

- HUD should simplify the AFHMP form to reduce administrative burden, to reduce room for error in the analysis of groups least likely to apply, and to reduce barriers to updating marketing strategy more frequently if needed.
- HUD should allow greater flexibility in determining affirmative marketing strategy, perhaps by allowing qualitative, free-form responses.
- Developers should determine “groups least likely to apply” themselves. HUD should send out a memo banning housing authorities from limiting developers with pre-filled, read-only analysis on forms. HUD should include developer signatures on the form rather than just the property manager.

2.4.4 Recommendation to Support Further Research

An additional concern raised by stakeholders included whether marital status and intersectional identities ought to be added to the analysis of groups least likely to apply. In addition to quantitative analysis of census and AFHMP form data, these require qualitative analysis—feedback, in words, from filers.

In order to conduct this research, and to have a low-lift way to continue to have approved researchers study and improve the quality of the AFHMP, it may be recommended to HUD that space for an inclusion of a link to a survey to be added on new versions of AFHMP forms. This reduces barriers for research to have to contact filers for their publicly-available forms, and to remove the burden on filers to have to respond to surveys long after filing. Such a facility could be a highly impactful way to pilot new paths for policy research to improve HUD regulations in the future to come.

Exploration of Planned Adaptive Regulatory Structures for the AFHMP

3.1 Introduction to Planned Adaptive Regulations

In science, incorporating new knowledge into working theory is common. New empirical data offers new insight to build or to break existing theory. In this way, by constant review of old links made and broken, causal knowledge is built over time. And in a new environment of causal knowledge, new inquiry adapts too.

In policymaking, however, paying attention to updated information is not found as often as it could be. Why? As cited by McCray, Oye and Petersen, introducing instability and acknowledging uncertainty in policymaking invites logistical and reputational costs. Added to the financial costs of look-backs, it seems politically infeasible to ask for them (2010).

But when these barriers are offset by external advocates pushing for planned look-backs, and when the political timing is right, adaptation of regulations to updated technical knowledge can be politically feasible and highly impactful. Such policies, which commit to complete re-evaluation with updated knowledge inputs, are said to leverage “planned adaptation” (McCray, Oye, and Petersen 2010).

This chapter seeks to investigate the application of a planned adaptation structure to Affirmative Fair Housing Marketing Plan (AFHMP) regulations to benefit low-income developments in the long-term.

3.1.1 Definitions

In this work the phrase “policy environment” is defined as the context of a policy that could affect its efficacy at a given moment. This could include political context, social context, and current technological infrastructure to support policy processes.

The phrase “policy instrument” is used to mean the method by which a policy or regulation seeks to attain its goals. For example, the policy instrument the Environmental Protection Agency (EPA) used to improve goals of pollution-related health outcomes was a federal limit on ambient particulate matter levels and monitoring for nonattainment (McCray, Oye, and Petersen 2010). An alternative instrument could have been a flat federal tax on private manufacturers that pollute. The use of this phrase is inspired by terms used in Reiner (“Getting from Here to Where?” n.d.).

3.2 Motivations for Adaptive AFHMP Regulations

Creation of an adaptive structure for AFHMP regulations is motivated by two major sets of changes for this problem: environmental changes which affect process, and changes in knowledge which affect the policy instrument.

The environment could include changes in politics, social dynamics, technological infrastructure to support policy processes. Political environment could mean political leaders, agency structure, local geographies, and concurrent policies, to name a few. Social dynamics could include evolving public priorities or awareness of different issues, the inclusion or exclusion of culturally acceptable methodologies for social research, or evolving consumer preferences. Finally, technological infrastructure changes could include changes to the platforms on which data is collected and paperwork are filed, and evolution of what is collected by the census or other surveys over time which multiple policies rely upon.

It needs to be a priority to address issues that could arise for the AFHMP regulations due to changes in policy environment. When such changes occur, hard-and-fast rules made in an outdated context—for example, about the data to be used, the

update rate needed for the analysis of groups least likely to apply, the protected characteristics that need to be analyzed, the method of the analysis, the metrics for compliance—will inevitably raise the same original concerns of collaborators at Camfield Estates. Constraints will feel too high, and a feeling of a lack of autonomy will persist. And the ultimate risk that needs to be avoided is that the existence of a policy has a worse effect than without the policy at all: the AFHMP should not unintentionally encourage segregation of communities.

It should also be top-of-mind that the instrument applied here, making sure every federally-subsidized development markets to groups least likely to apply in some way, may not be the correct instrument towards the actual goals of affirmative administration of housing programs and reduction of segregation of communities. Perhaps there should be a quantity or quality of marketing specified. Or perhaps affirmative marketing should not be the instrument at all. Having an adaptive structure could make agency policies align much more efficiently to the statutory mandates meant to be followed.

Lastly, any results for this specific and scoped policy could potentially be generalized to other U.S. Department of Housing and Urban Development (HUD) policies dealing with the same set of environmental changes and knowledge evolution.

The following sections propose three potential structures for new adaptive AFHMP regulations, distinguished by characteristics of their expert research body: one participatory “expert” research body for the country, a participatory “expert” research body for each state, or, lastly, a research body (of more conventional definition of expertise) for the country. This is meant less for a decision to be made at this stage about a recommended structure, but to outline considerations to be had after more political momentum and research is conducted on the AFHMP policy.

3.3 Possible Structure to Planned Adaption in AFHMP Regulation: Country-Level, Participatory Decision- Making

3.3.1 Case Precedents

This proposed structure relies on two precedents for decision-making and knowledge gathering, the EPA’s adaptive regulation of small particulate matter towards air quality-related health outcomes, and the Healthy Neighborhoods Study’s participatory theory-building on patterns of gentrification in Massachusetts.

The EPA’s regulation of particulates sets federal limits on ambient levels of particulate matter and monitors air quality for regions of “non-attainment” of the standard. The EPA gathers knowledge, the knowledge is reviewed by an external panel managed by a committee administered by a separate EPA office than that which manages the air pollution control program. Final decisions are then made about the standard. This process is revisited regularly (approximately every five years) under 1977 Congressional mandate for regular reviews of existing health standards under the Clean Air Act, beginning in 1980. While updates have not been made consistently timely at the five-year mark, the adaptive policy has been highly impactful in terms of societal health benefits, especially with modifications to the regulation of smaller particulates, rather than larger particulates, as knowledge developed about their considerable harms to health. It also gained budget to fund research associated with particulate matter proactively rather than take a reactive update stance, possibly due to the high societal health benefit the program incurred (McCray, Oye, and Petersen 2010).

The Healthy Neighborhoods Study (HNS), a longitudinal public health and urban development research study, is successful for different reasons. The study seeks to build knowledge around topics like patterns of gentrification in Massachusetts, or factors of self-rated and mental health, or the effects of gentrification on personal

financial stability—theory that is difficult to build and gather empirical evidence around, but that is critical for public health and urban planning decision-making (Arcaya et al. 2018; Daepf et al. 2022; Binet et al. 2022). To build actionable evidence, the study takes a participatory action research approach—a network of “resident researchers,” who call home the neighborhoods being studied, get training, social science mentorship, and compensation from academic research partners to conduct interviews, collect survey data, and participate in focus groups for collaborative data analysis and theory-building, generate the data, results, and analysis. They have agency over the knowledge being generated about their communities, and while it is a slower research process, the results may be more robust for policymaking: community representatives “own” the data at all stages of the research process, build relationships for community (stakeholders’) support of the research, and make it a priority to shape research direction on questions of the greatest community-perceived priority. While a seemingly very different approach than the top-down EPA air quality standards, in essence both rely on independent expertise to build knowledge that policy relies on—just that the best “experts” on timely, policy-relevant experiences of low-income individuals might be community members themselves.

Due to its structure for generating research, HNS has been lauded for successfully building social science theory around gentrification which would have otherwise been difficult to build community and scholarly consensus around. Additionally, the structure has enabled actionable quantitative results too, for example, one of the first datasets on moving patterns in the greater Boston area (Daepf et al. 2022).

3.3.2 Proposed Adaptive AFHMP Regulation

What? For AFHMP regulations affecting low-income developments, the decisions that need to be made (analogous to PM2.5 limits set by EPA) would be process changes due to updates in the political, social, and technological environment (see Motivations for Adaptive AFHMP Regulations). These include critiques and guidelines for conducting the analysis of groups least likely to apply, the methods of monitoring occupancy statistics, guidelines on update rate, and what groups should be afforded

protections. Additionally, decisions about further research needed for updating the instrument used could be made.

Who? Decisions would be made by a research body external to the HUD Compliance regulatory body (just like in the particulate matter case) to improve robustness. Because experts on experiences of low-income developments under the AFHMP regulations are likely best defined as low-income development owners, staff, and residents, they should make up the research body. This would be similar to the paid “resident researchers” network in the HNS case. The stakeholder analysis for how to build this network could be conducted by an independent team. The resulting “expert” research body could be repurposed for multiple adaptive policies to allow this process to be worth the additional costs. The research body would need to be formal and provide compensation because it would be very difficult to ascertain feedback from vulnerable populations with pressing daily concerns without an organized structure and payment for opportunity costs of providing their time to the research.

When? Updates may happen at a frequency called upon by the “expert” research body. This may be event or policy-driven, or timed with the release of new census or American Community Survey data.

How? Like in the HNS case, decisions should be made during discussions with the goal of consensus.

Advantages: The “expert” research body (participatory structure) allows for very local concerns and experiences to be heard at an impactful level, leveraging strength in numbers and a formal organizational structure. In this way, the body could push for adaptive policy that is most needed according to the most local changes.

Disadvantages: HNS is successful given its leadership and somewhat stable sources of funding through nonprofit grants (Arcaya et al. 2018). Management of the “expert” research body would need to be run by an experience participatory action researcher to have a similar chance at success. It is unclear if the same funding strategy could be applied and whether HUD funding could be garnered for an adaptive policy at all. But, with the right political timing that allows for agency acceptance of an adaptive pilot, this structure could be successful. Another possible disadvantage is

that consensus among representatives of different communities may be tougher—this may be due to legal differences by state or differences in priorities of the cities.

3.4 Possible Structure to Planned Adaption in AFHMP

Regulation: State-Level, Participatory Decision-Making

3.4.1 Case Precedents

For hunting game, there are both state daily bag limits for game, which adapt to changing regional environments (game numbers). These limits are defined by federal state conservation agencies, for example, the Division of Fisheries and Wildlife for Massachusetts (“Deer Hunting Regulations | Mass.Gov”). The work of state agencies can change maximums when local social values or game populations require stricter limits (McCray 2023).

3.4.2 Proposed Adaptive AFHMP Regulation

Like the Federal-level decision-making structure proposed earlier, this alternative proposal seeks to have decisions made by an “expert” research body made of low-income development stakeholders. However, this body must exist for each U.S. state, to update regulations according to knowledge relevant to regulating low-income developments in that state.

Advantages: Having updates that are more responsive to local changes could be more impactful if there are significantly different changes in the policy environment from state to state.

Disadvantages: It is often the case that bigger cities like New York and Los Angeles have more organized advocacy groups than in smaller cities. This particular “expertise” may be valuable across different states. In this structure, that sharing of knowledge may be lost. It also may be hard to expect strong leadership/management

of the “expert” research body in each state with specific expertise in participatory action research. Lastly, making more general updates to the regulation, like if a better policy instrument may exist, may be more successful with more data and pilot opportunities that a federal-level research body may have more access to.

3.5 Possible Structure to Planned Adaption in AFHMP Regulation: Country-Level, Independent Research Body Makes Decisions

3.5.1 Proposed Adaptive AFHMP Regulation

This final proposal removes the participatory “expert” research body and instead has a more traditional research body made up of independent social science and urban planning researchers. This independent research body, like in the EPA particulate matter case, should be external to the regulatory decision-making body for improved robustness. This body would have a different set of technical skills than the regulators that would facilitate research on experiences in low-income developments.

Advantages: The clear advantage here is that the structure is more simple and less costly. Because of the research body not necessarily relying on consensus-building discussions it may be more efficient.

Disadvantages: Results, however, do not have a built-in mechanism for being accepted by stakeholders. It may be difficult to expect a low-income development to want exchange the decisions made by a government agency for a research body and believe that their concerns will make it into each update.

Thesis Conclusion

This thesis provides a description of the limitations of Affirmative Fair Housing Marketing Plan regulations pertinent to low-income developments. It seeks to amplify voiced concerns of the research collaborators Camfield Estates that may also benefit other low-income developments, and it offers distinct immediate recommendations to improve the policy to rectify a subset of these concerns and better align with policy goals. Finally, an exploration of a long-term feedback mechanism through planned adaptation is presented.

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