Submitted via: http://www.regulations.gov
and via email to RegComments@fhfa.gov

June 23, 2023

Federal Housing Finance Agency
Clinton Jones, General Counsel
Attention: Comments/RIN 2590-AB29
400 Seventh Street SW, Washington, DC 20219

Re: Comments/RIN 2590-AB29 - Notice of Proposed Rulemaking on Fair Lending, Fair Housing, and Equitable Housing Finance Plans

Zest AI appreciates the opportunity to comment on the Federal Housing Finance Agency's (FHFA) notice of proposed rulemaking (NPRM) to codify and expand upon existing obligations to publish and maintain equitable housing finance plans (Plans) for how to meet the needs of populations underserved in the housing market, and to codify the requirements as a prudential standard along with the existing standards of safety and soundness, among other proposals. Zest AI's comments on the proposal will focus primarily on proposed subpart C. We will also offer brief observations on subpart A as well as responses to specific questions posed later in the NPRM with respect to the equitable housing finance plans (Questions 7-9 and 14).

Our comments on the NPRM, and Zest AI's prior comments on the Plans linked in the Appendix, are informed by our work providing underwriting and fairness technology that is supporting lending programs in diverse contexts including non-mortgage credit markets, credit unions, Fortune 500 companies, and one of the Enterprises.[1] Before commenting on specific provisions of the proposed rule, we believe it is important to address the significance of a final rule and how the FHFA can enhance it to dramatically improve fairness and transparency for consumers, particularly the underserved.

Make Lending Fair and Transparent for Everyone

Zest AI is a software company on a mission to make fair and transparent credit available to everyone. We do that by developing powerful, transparent credit underwriting technology driven by artificial intelligence and machine learning that banks, credit unions, fintechs, and other financial institutions can deploy swiftly and with confidence. We believe that Artificial Intelligence (AI) and Machine Learning (/ML), when used and governed properly, offer a once-in-a-generation opportunity to reduce racial disparities in consumer financial services while

[1] Zest AI Joins Forces With Freddie Mac To Help Make Homeownership Possible For More Americans, Zest AI press release (Nov. 18, 2020).

at the same time improving the safety and soundness of American financial institutions. At Zest AI we think of AI/ML as better math that financial institutions, including the Enterprises, can use to reduce bias and to create a fairer, more transparent credit ecosystem.

There are equitable housing finance concerns that require immediate attention and can be addressed through the proposal.

Out-moded tools are insufficiently identifying and addressing disparate impact.

The FHFA has the opportunity to use the Plan requirements to advance the usage of more effective fairness and underwriting tools.

- The rule should promote more effective race estimation as part of self-testing for fair lending compliance.

Estimation tools for race and ethnicity are necessary to evaluate disparate impact in non-mortgage credit but they can also play an important role in housing finance where self-reported data is not available. Better methods to estimate race would help academics, regulators, and lenders themselves more accurately count likely protected class members and more accurately gauge potential disparate impact. Improving race estimation would help the Enterprises target resources to where populations are overlooked and where disparate impact could be mitigated. The FHFA should discuss the limitations of current tools and proxy methodologies and require, or at a minimum encourage, Enterprise adoption of more advanced approaches to race estimation. The status quo tool is not up to the task.

- The rule should require assessing the impact of variables during model build to check for disparate treatment and impact.

Modernizing underwriting nationally would have a dramatic impact on equitable housing finance. Transparent AI-driven technologies with compliant explainability documentation have been proven to increase inclusion among protected classes by 20 percent or more.[2] Using these technologies financial institutions can assess interactions among model variables to drive inclusion while maintaining predictive accuracy, maintaining high levels of customer service, and holding risk constant. The Enterprises should be required, or at a minimum encouraged, to adopt state-of-the-art technologies that help establish a valid, achievable yet significantly higher bar for reducing approval gaps that will drive inclusive lending, and that will support lenders working nationally to substantially increase equitable inclusion.

- The rule should mirror fair lending law requirements for Less Discriminatory Alternatives (LDA) searches as part of disparate impact analysis.

Outmoded underwriting is often too cumbersome or ineffectual to meet the credit risk needs of the institution while providing effective and equitable financial solutions. An automated search that yields credible options that the lender can compare, and from which to assess whether to

[2] Theodore R. Flo, Three Ways We Can Ensure That AI-Driven Lending Works For Everyone, (Dec. 9, 2021).

deploy the benchmark or an LDA, and to which the lender can refer back if conditions warrant or if an examiner has questions, would increase lenders' capabilities for LDA searches.

Consistent expectation and execution of these searches has enormous potential to reshape the industry's reliance on the business justification under federal fair lending laws in lieu of a meaningful LDA search.[3] The difficulty and perceived regulatory risk in searching for and deploying LDAs after a model has launched could be needlessly preventing lenders from making their best efforts to reach more borrowers.

FHFA should clarify that using AI/ML to enhance underwriting tools AND to evaluate/regulate them would support financial inclusion goals among housing finance market participants.

FHFA should encourage the Enterprises to be part of the vanguard in managing AI risks in credit underwriting. While AI/ML in credit underwriting occurs in many forms and is common among financial institutions, today AI/ML usage in fair lending analytics is much less common. Better math in the form of AI/ML can enhance fair lending analytics needed to provide visibility and manage risks in complex models prior to deployment and while in production.

The reluctance by many financial institutions to adopt advancements that could help them better reach underserved populations is not difficult to grasp if one considers the regulatory risk that attends changing from the status quo, even if the change improves results and compliance. This reluctance is leaving borrowers of color on the sidelines, out of sight and out of mind. The Enterprises are the path to improving housing finance in this country, and as the Enterprises go so goes trillions[4] in housing finance dollars that should be made available in communities that are being shut out.

FHFA should direct the Enterprises to seek out, test, and deploy the most advanced analytics available. There exist today technological innovations that will help market participants to confidently boost inclusion without increasing credit risk, explain and document their fair lending compliance, and conduct robust searches for LDAs. The adoption of more advanced tools would also facilitate consistent and effective fair lending examinations by the federal financial regulators.

The Enterprises should be required to promote the development of anonymized loan data as national training/testing data.

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[3] Federal regulators expect lenders to search for LDAs before launching (and to continue to evaluate models after launch). See Yolanda McGill, CFPB should support the use of AI to reduce lending discrimination | National Mortgage News, (May 19, 2023). See also Brad Blower, CFPB Puts Lenders & FinTechs On Notice: Their Models Must Search For Less Discriminatory Alternatives Or Face Fair Lending Non-Compliance Risk » NCRC, National Community Reinvestment Coalition (Apr. 4, 2023).
[4]The Enterprises back the majority of the country's residential mortgage volume, almost $12 trillion as of mid-2023. https://www.bankrate.com/mortgages/mortgage-statistics/#rates (May 8, 2023).

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Advanced fairness analytics in the form of better math and science would be further enhanced by better data. The Enterprises are well-positioned to advance more precise fair lending tools because they have access to perhaps the best, most complete and most pristine dataset against which to test and train underwriting models for fairness. Moreover, one could argue that the FHFA has an obligation to guide and oversee the deployment of this growing dataset for the benefit of the American consumer. Data collected pursuant to the Home Mortgage Disclosure Act (HMDA) includes race data that, while self-reported, provides important data to monitor for fair lending compliance. HMDA data combined with more granular data provided by the Enterprises would present a powerful means of assessing and addressing credit disparities.

Zest AI Comments On The NPRM

Subpart A - Definitions
The term underserved, according to the FHFA proposal, is to be broadly defined to incorporate not only the protected classes of potential applicants but also additional categories that do not appear in the Equal Credit Opportunity Act (ECOA) or the Fair Housing Act (FHA), such as rural residents. Zest AI supports this proposed definition. As we discuss below, a limited view into geographic distribution of equitable credit opportunities can diminish the ability to measure, assess, and rectify the inequities.

However, FHFA should take care that addressing barriers for populations that are not defined in federal fair lending laws, and therefore, do not have the benefits and burdens of associated legal precedent, are not viewed as a means of advancing FHFA's goals by focusing Equitable Housing FInance Plans on easier cases or 'lower-hanging fruit' that can represent success for the Plans. The inclusion of additional protected classes should not be used in a way that diverts much-needed attention and resources away from more difficult barriers for existing protected classes that may require more time and effort to resolve.

Subpart C - Enterprise Equitable Housing Finance Planning
Proposed section 1293.21.
FHFA proposes to identify most of subpart C as a prudential standard. Zest AI supports this proposal as written. Codifying FHFA's expectations with respect to housing equity and the financial conditions that drive it are critical regulatory clarifications that would lead to increased resources dedicated to these areas, and would help institutions to better balance business needs related to fair lending as they work through strategic priorities and investments.

Proposed section 1293.22.
FHFA is proposing to require that the Plan identify barriers and include real measurable objectives to address them. Under the proposal, the Plans would require that the Enterprises incorporate objectives as a way to frame the focus of a given Plan, with specific actions and measurable goals flowing from the objectives that would address equity and fairness on a national scale commensurate with their roles in the mortgage market.

In support of our mission to make fair and transparent credit available to all, at Zest AI we think about barriers in terms of what transparent data and explainable technology can do to bring more underrepresented borrowers into the light. We do not provide direct access to loans. Instead we increase underserved borrowers' access to the financial institutions we serve by developing technology to reach more of the creditworthy customers these institutions were unable to assess due to outdated, less comprehensive scoring methodologies. Our research shows that technology, specifically the responsible use of artificial intelligence and machine learning, can help institutions do deeper dives into credit report tradelines more thoroughly and more quickly so they can confidently lend to borrowers they may have otherwise overlooked, without increasing credit risk.

We have seen that fair lending to borrowers, and by extension, fair lending compliance can suffer when lenders have less than adequate means to measure the creditworthiness of all of their potential borrowers. Fair lending and fair access are also diminished through outmoded means to measure for disparate impact and seek out less discriminatory alternatives. In order to make meaningful change commensurate with the extensive reach of the Enterprises, adoption of better fair lending compliance approaches should be required, not just encouraged. The Enterprises should be required to devote additional resources to evaluate new tools and generate findings as to improved approaches. This will help incentivize lenders to more broadly adopt better solutions at scale that will drive equity by closing approval gaps in a meaningful way.

Proposed section 1293.25.
In proposed subsection 1293.25(b), which would set forth the requirements for Plan objectives, FHFA states that the Enterprises could 'promote or require' certain activities. Zest AI generally supports this proposal but requests that FHFA strengthen these provisions in its final rule.

As proposed the requirement incorporates a certain level of flexibility for FHFA and for the Enterprises. Currently the provision contemplates optionality as to the objectives that could be included in a given Plan. In their inaugural Plans the Enterprises took markedly different approaches, as reflected in each Plan's objectives. While one opted to focus on creating and leveraging partnerships in the community to provide more support to impacted consumers setting out to obtain housing (including rental housing), the other elected to look at underwriting and credit access options that might drive more credit to underserved communities, both through core business lines as well as through special purpose credit programs.

While both approaches could provide beneficial impacts, the Enterprises direct trillions of dollars in mortgages and are therefore uniquely situated to impact how lenders make the necessary improvements to make more loans, more equitably. FHFA should consider setting a requirement that a equitable housing finance plan always includes at least one objective that will directly result in more mortgage loans and more financial opportunities for underserved populations.

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Require improvements in fair lending standards and compliance.
Fair lending standards and compliance improvements should be required by the Enterprises, not just promoted. Research shows that the wealth gap between white consumers and consumers of color, in particular African-American consumers, is at an all-time high.[5] Many factors contribute to this wealth gap, but chief among them is the difference in assets, mainly real property.[6] The challenges to closing the gap persist in part due to biases inherent in the data and the methods used to assess potential borrowers who should qualify for mortgages but are disregarded. FHFA has the levers to push the market to seek out and deploy advanced methods that will bring more loans to more creditworthy people who are left out due to no fault of their own.

Zest AI recommends that FHFA consider strengthening the language describing this potential objective to direct specific improvements to fair lending standards and compliance. For example, FHFA should clarify that it expects the Enterprises to require or themselves conduct searches for LDAs. LDA search is often skimped upon by lenders, and FHFA may have the desire to be mindful of increasing burden, in particular for small entities. However, we and others in the financial services community have spent years refining advanced fair lending analytics to make this technology accessible and cost effective to small financial institutions. A clear expectation of consistent LDA search would move the Enterprises a significant step toward fulfilling the promise of their equitable housing finance plans.

As we note above, the technology exists TODAY to make these financial improvements in the lives of millions of Americans. There are advanced tools with robust explainability and documentation that would allow financial institutions large and small to increase inclusion all while confidently monitoring and understanding how they are doing it, and that could be deployed at the Enterprise and the lender levels. These tools can be responsibly used to help close the gap in credit approvals and homeownership that has existed for decades and worsened during the pandemic.

Require improvements to race estimation methodologies used by the Enterprises.
Monitoring racial gaps in outcomes in mortgage lending is easier than in most consumer loan products, as mortgage lenders are required to collect applicants' race and ethnicity information. However when that data is not clean or is missing, lenders must estimate applicants' races when conducting fair lending analysis. Incorporating into the Plans broad-based improvement in race estimation methods would improve the overall understanding that FHFA and the Enterprises have of how well lenders are achieving inclusion goals, as well as measuring improvements in where loans are made and to whom.

Regulatory clarity from FHFA about the value of race estimation is critical because the status quo approach, Bayesian Improved Surname Geocoding (BISG), is no longer the most promising

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[5] Daniel Immergluck, "Racial Justice and the Mortgage Market: Recommendations to the Biden Administration Regarding the Future of the GSEs" [Racial Justicein Housing Finance: A Series on New Directions](#) (May 2021).
[6] Id.

tool for painting the clear picture we need to decrease disparate impacts. BISG is the primary tool for estimating race and ethnicity to determine the reach of a lending program in the fair lending context, and has been accepted as such by regulators and practitioners.[7] BISG was created over fifteen years ago, is based on statistics developed in the 1800s and uses very limited data (last name and zip code only) to estimate how many people might identify as a given race or ethnicity. However, in particular when used with automated models BISG often misidentifies white borrowers as people of color, thereby understating potential disparate impacts. BISG assumes static zip codes even though metropolitan zip codes can shift dramatically in short periods of time. BISG does not adequately account for how some populations (in particular Black Americans) might have acquired their last names.[8]

Zest AI researchers found that more advanced data science methods and better data meaningfully increases the accuracy of the estimation method. Initial validations show that Zest AI's advanced tool is better at predicting race than other methods, often uncovers a more severe disparate impact in fair lending analysis, and provides a more accurate count of protected individuals than other methods.[9] In a test using Florida voter registration data (one of few publicly available datasets that include ZIP code, name, and race/national origin), a Zest AI-built race estimation model identified Black consumers with 30% more accuracy than BISG at the 80% confidence threshold. It also cut the numbers of white consumers identified as non-white by 70%. In a test conducted by the Harvard Computer Society's Tech for Social Good program using North Carolina voter data, Zest's algorithm was more than twice as accurate at identifying Black individuals and 35% more accurate at identifying Hispanic individuals than BISG.[10]

It is hard to address a problem that you cannot see. BISG was once the headlight in the dark, but headlights are more advanced now. FHFA should ensure that the Enterprises use the best tools available to more accurately identify populations that FHFA is directing them, and the lenders that rely on their capital, to serve. These tools are accessible and cost-effective. The Enterprises should apply the most advanced means of assessing the reach of their own underwriting methods.

The Enterprises should also be directed to support further research and advances in race estimation technology. The Enterprises have large, clean datasets that would improve the training data available to model developers and others who think that BISG can be improved upon. Analysis and adoption by the Enterprises would also incentivize lenders doing business

[7] Consumer Financial Protection Bureau, [Using publicly available information to proxy for unidentified race and ethnicity | Consumer Financial Protection Bureau]() (Summer 2014).
[8] Kasey Matthews, "Improving This Algorithm Can Make Lending A Lot Less Racist," Zest AI blog (Aug. 4, 2020), at https://www.zest.ai/insights/improving-this-algorithm-can-make-lending-a-lot-less-racist.
[9] in 2020 Zest AI released the Zest Race Predictor (ZRP) algorithm as open source code to the public at https://github.com/zestai/zrp in order to jump-start the innovation needed to modernize race estimation, a fundamental aspect of fair lending analysis.
[10] Zest AI FHFA Equitable Housing Comment Letter, p. 5 (Oct. 25, 2021).

with them to seek out advances that improve their impact and compliance rather than playing it safe with BISG. We urge FHFA to move beyond the status quo that is currently sanctioned by regulators and to instead make meaningful investments in, and to reduce barriers to the adoption of, new estimation techniques that have shown they can advance the equity goals set forth in the proposal.

Comments Specifically Requested

Equitable housing finance plans and updates - Comments Responsive to Questions #7-9, #14

The proposal provisions that describe the minimum contents of the Plans should include more specificity regarding FHFA's expectations and what the public could hope to see the Enterprises achieve. For example, the Plan requirements do not appear to require the Enterprises to show some level of positive change. The Enterprises should be required to organize the actions and goals flowing from Plan objectives so that by the end of a Plan's term a notable upside, such as a "statistically significant sustained improvement" can be seen for the underserved community selected with respect to the barrier(s) targeted in a Plan. Compelling the Enterprises to focus resources on impactful actions and goals that build upon each other and would more readily lend themselves to objective measurement. The annual performance reports could easily become simply status reports that do not describe steps that indicate pursuit of progress, unless there is a specific requirement for such a showing.

As a regulator, FHFA should take into account constraints and shifting conditions that could impact the Enterprises efforts. However, given the outsized impact they have on the housing and mortgage markets, the Enterprises should be required to prioritize finding and making necessary adjustments in order to maintain forward momentum and progress on Plan objectives. Changes to economic conditions that could cause the Enterprises to consider pulling back resources will likely be the very occasions where the actions under these Plans would be most needed by underserved consumers.

Conclusion

Clear fair lending requirements and strong incentives from FHFA and the Enterprises would have a dramatic impact on the persistent and devastating home finance gap that helps fuel the wealth gap in this country. Rigorous fair lending compliance supported by advanced explainability ought to be a requirement for the Enterprises as well as all financial institutions with which they conduct business. FHFA should clarify that the study and use of more effective techniques for identifying LDA models is an agency expectation. Ongoing improvements to statistical analysis, such as through the pursuit of more sophisticated techniques for race estimation, should be encouraged so entities and regulators can better measure how fair models are to people of color. Compliant equitable housing finance plans should show demonstrable progress towards more finance and more inclusion. The adoption of one or more of these recommendations in the FHFA final rule could expand access to wealth-enhancing homeownership opportunities for millions of Americans.

Sincerely,

Yolanda D. McGill, Esq.
Vice President, Policy and Government Affairs

Appendix

Zest AI FHFA Equitable Housing Comment Letter 10.25.21, at
https://www.fhfa.gov//AboutUs/Contact/Pages/input-submission-detail.aspx?RFIId=1523