

# Notice of Equality

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My commitment to diversity, equity, and inclusion is deeply tied to my academic research on algorithmic fairness and economic inequality. Through my work, I have explored how to measure and regulate fairness in a world with ever more complex models, and proposed novel ways to do so. For example, mortgage lending in the U.S. has seen a shift towards algorithmic underwriting over the past two decades. This makes some of the traditional ways to measure (and regulate) fairness challenging. In my research, I have 1) introduced modern definitions of fairness developed in computer science to the consumer finance literature and 2) leveraged machine learning techniques to develop novel strategies to measure and regulate fairness in this market.

I am committed to using my research to contribute to a more just and inclusive society. As part of this effort, we developed the Mortgage Fairness Explorer, available at <https://www.philadelphiafed.org/surveys-and-data/consumer-finance-data/mortgage-fairness-explorer>. This dashboard is designed to educate and inform the general public on the state of fairness in the U.S. mortgage market. Additionally, I have briefed our Bank President, President Harker, on the topic of “How to measure and regulate fairness in lending” in the fall of 2023 through his semi-annual Inequality Briefing.

Beyond research, I am dedicated to fostering inclusive academic and professional spaces. I believe that equitable access to opportunities is essential for meaningful progress. We have been able to achieve gender parity among the research assistants in our Machine learning group, and I have participated in the selection of and mentoring of students as part of the *AEA/NSF Summer Economics Fellowships to Advance the Careers of Women and Underrepresented Minorities* program for the past two years.

Finally, I also view the question of how to regulate algorithms and ensure fairness in complex ML and AI pipelines as an important topic to discuss in upper level classes at the intersection of Machine Learning and Economics. I plan to emphasize such discussions in my classes. In doing so I hope to educate a thoughtful citizenry on this topic.