The complex relationship between systemic processes and equity is a societal challenge that necessitates understanding to better identify underlying racial differences in the United States. The Initiative on Combating Systemic Racism housing vertical within the Institute for Data, Systems, and Society is an interdisciplinary research practice dedicated to analyzing the conditions of particular procedures and operations whereby racial variance can propagate throughout the housing system. Recent literature has provided the catalyst for properly examining barriers to homeownership for minority populations, inequality in mortgage financing, biases in lending practices, and other underlying discrepancies within and related to institutional processes. This research project uses big data and general analyses to lay the appropriate foundation for mapping the degree of the relationships between economic, social, and historic variables. This research is conducted to recognize appropriate causal factors relative to racial differences among current and potential homeowners and the economic benefit derived from system entry. Analyses are guided by a deconstructive approach to better isolate imperative, explanatory variables whereby effective policy changes can be implemented, or practices can be adjusted, to diminish the wealth gap and further promote fairness in practice and across the system.

Making the Inequitable Equitable: Mapping Racial Differences in Housing Security

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Abstract

The complex relationship between systemic processes and equity is a societal challenge that necessitates understanding to better identify underlying racial differences in the United States. The Initiative on Combating Systemic Racism housing vertical within the Institute for Data, Systems, and Society is an interdisciplinary research practice dedicated to analyzing the conditions of particular procedures and operations whereby racial variance can propagate throughout the housing system. Recent literature has provided the catalyst for properly examining barriers to homeownership for minority populations, inequality in mortgage financing, biases in lending practices, and other underlying discrepancies within and related to institutional processes. This research project uses big data and general analyses to lay the appropriate foundation for mapping the degree of the relationships between economic, social, and historic variables. This research is conducted to recognize appropriate causal factors relative to racial differences among current and potential homeowners and the economic benefit derived from system entry. Analyses are guided by a deconstructive approach to better isolate imperative, explanatory variables whereby effective policy changes can be implemented, or practices can be adjusted, to diminish the wealth gap and further promote fairness in practice and across the system.

Introduction

Past literature has mapped racial differences and systemic racism, or discriminatory processes in systems, relative to geographic locations and/or several variables across time. The ability to trace interconnected relationships between key players in the system and to isolate the influence of specific variables remains both difficult in practice and visualization. The housing system is a rapidly growing web of complexity that seems absent of noticeable points of entry for effective policy changes or interventions. We found differences in homeownership and decided to focus on causal factors that can explain barriers to ownership and obstacles to wealth accumulation while limiting complexity and isolating variables to the best of our ability. We realized the need for a general framework or approach was both necessary and imperative.

Data Analysis and Methodological Limitations

We used big data, or large data sets, from a plethora of sources, including the Federal Reserve, the Consumer Financial Protection Bureau, and the United States Census Bureau, to conduct analyses through trend and pattern recognition. We derived selected information for the construction of several graphs to recognize where existing racial differences persist in the system. Our primary objective was to improve our chances of identifying the appropriate variables whereby potential policy and/or procedural changes may result in actionable change. For the scope of this project, we focused on financial differences that could have economic implications for wealth accumulation and the racial wealth gap.

We noted the difference in homeownership rates and decided to assess the accessibility of the system and the racial difference in derived economic benefit upon entry. With a continued granular approach, we assessed the difference in loan application denials for home purchase and home refinancing between 2007-2017 in Missouri. We found black borrowers have higher loan denial rates than white borrowers. We faced limitations in our attempt to dissect economic and/or legislative procedures and policies related to inaccessibility or poor economic benefit. Much of our desired variables are occluded by privacy or legality. For example, denial reasons often include credit history or debt-to-income ratios.

Preliminary Conclusions

Proper assessment and comprehension of the racial differences that exist in the housing system requires an appropriate visualization of networks within the system. This map is a curvy simulation of the housing system. This reconstruction can aid in formulating which factors must be considered, and/or isolated, when attempting to trace the source of racial differences. The hope is to accumulate enough information relative to the connectedness of variables within the system to be able to understand how the system might impact an individual given their race, excluding all other variables. The map provides potential target variables that prompt consideration by connecting all, or known, related variables. Each variable is referred to as a factor and is separated by zone, or a basic subdivision of the overall system, which includes historic, social, and economic variables, alongside key players. These zones are reflection of nearly all known factors playing within the system and provide broad descriptions of the variables for guided assessment relative to causality and comprehension.

To assess the compatibility of the map with the intent of our research, we considered the economic benefit of current homeowners by assessing one target variable, equity. According to the constructed network map based on related literature, home value can influence family characteristics, including asset portfolios and the equity of such. Location-dependent factors, particularly crime or neighborhood history, can impact the value or appraisal of any one individual's home. We decided to return to our original valuation of median home values in which we assessed the difference in median home values between 2010-2015 across each census tract in Missouri. We then separated accumulation and the racial wealth gap.

Future Directions

It is imperative to realize the torque, or level of influence, and fixedness, or the amount to which a variable is "set" within a system, for each variable. Ideally, linear regression analyses should address and quantify the relation between target and causal variables. All variables should continue to be mapped, along with their measured connections, to ensure the avoidance of assumptions. Future work should also include quantifying the influence of housing variables on the racial wealth gap.

It is crucial to consider the degree to which these variables influence the wealth of an individual and how substantive the influence is on the overall wealth gap.

Resources


City of Kansas City, MO. KCPD Crime Data 2015, data.kcmo.org.

Consumer Financial Protection Bureau. The home mortgage disclosure act data.


Acknowledgements

Special thank you to:
1. Aurora Zhang, MIT
2. Wendy Andree (DePaul, MIT)
3. Winping Su, MIT
4. Kira Ras-Rocks, Berkeley High School
5. Dr. Noelle Wakefield, Dr. Maria Cervantes Gonzalez, and the MSRP staff

A special thank you to their continuous support and willingness to guide.